

The Undergraduate Catalog

EASTERN MICHIGAN UNIVERSITY.

Accredited by:
The Higher Learning Commission of The North
Central Association of Colleges and Schools

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For information on accreditation and to review copies of accreditation documents, contact the Office of the Provost, 106 Welch Hall, Eastern Michigan University, Ypsilanti, MI 48197.

The University undergraduate bulletin covers a 24-month period, Sept. 1 through Aug. 31, 2007–2009. Courses, majors, minors, 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

The University undergraduate bulletin covers a 24-month period, September 1, 2007 through August 31, 2009. Courses, majors, minors, programs, degrees and certificates in this catalog are subject to change without notice and may not be available in the future.

2007–2008 University Calendar

Fall Semester 2007

Sept. 1, Sat. Freshmen Residence Hall Move-In Day
 Sept. 2-3, Sun., Mon. Upperclass Residence Hall Move-In Day
 Sept. 1-4, Sat., Sun., Mon., Tues. Freshmen Orientation
 Sept. 5, Wed. Classes Begin
 Nov. 21, Wed. No Classes; Campus Open
 Nov. 22-25 Thurs.–Sun. Thanksgiving Recess
(University Closed; Library Open Fri., Sat., Sun.)
 Nov. 26, Mon. Classes Resume
 Dec. 12, Wed. Last Day of Classes
 Dec. 13-19, Thurs.–Wed. Final Examinations
 Dec. 16, Sun. Commencement (2 p.m.)
 Dec. 19, Wed. Residence Halls Close
 Dec. 20, Thurs. Close of Fall Semester

Winter Semester 2008

Jan. 6, Sun. Move-In Day and Winter Orientation
 Jan. 7, Mon. Classes Begin
 Jan. 21, Mon. MLK Jr. Day
(No Classes; Campus Open)
 Feb. 25–March 2, Mon.–Sun. Winter Recess
(No Classes; Campus Open)
 March 3, Mon. Classes Resume
 March 21-23, Fri.–Sun. Spring Recess–University Closed
(Library Open)
 April 21, Mon. Last Day of Classes
 April 22–April 28, Tues.–Mon. Final Examinations
 April 27, Sun. Commencement
 (Colleges of Arts and Sciences and Technology: 10:30 a.m., Colleges
 of Business, Education, and Health and Human Services: 2 p.m.)
 April 28, Mon. Residence Halls Close
 April 29, Tues. Close of Winter Semester

Spring Session 2008

May 4, Sun. Move-In Day
 May 5, Mon. Classes Begin
 May 26, Mon. Memorial Day
(University Closed)
 June 16, Mon. Last Day of 6-Week Classes
 June 25, Wed. Last Day of 7½-Week Classes
 June 25, Wed. Residence Halls Close
 June 26, Wed. Close of Spring Session

Summer Session 2008

June 29, Sun. Move-In Day
 June 30, Mon. Classes Begin
 July 4-5, Fri.–Sat. Independence Day
(University Closed)
 Aug. 11, Mon. Last Day of 6-Week Classes
 Aug. 20, Wed. Last Day of 7½-Week Classes
 Aug. 20, Wed. Residence Halls Close
 Aug. 22, Fri. Close of Summer Session

2008–2009 University Calendar

Fall Semester 2008

Aug. 30, Sat. Freshmen Residence Hall Move-In Day
 Aug. 31- Sept. 1, Sun.–Mon. Upperclass Residence Hall Move-In Days
 Aug. 30- Sept. 2, Sat.–Tues. Freshmen Orientation
 Sept. 3, Wed. Classes Begin
 Nov. 26, Wed. No Classes; Campus Open
 Nov.27–30, Thurs.–Sun. Thanksgiving Recess
(University Closed; Library Open Fri.–Sun.)
 Dec. 1, Mon. Classes Resume
 Dec. 10, Wed. Last Day of Classes
 Dec. 11-17, Thurs.–Wed. Final Examinations
 Dec. 14, Sun. Commencement (2 p.m.)
 Dec.17, Wed. Residence Halls Close
 Dec.18, Thurs. Close of Fall Semester

Winter Semester 2009

Jan. 4, Sun. Move-In Day and Winter Orientation
 Jan. 5, Mon. Classes Begin
 Jan. 19, Mon. MLK Jr. Day
(No Classes; Campus Open)
 Feb. 23–March 1, Mon.–Sun. Winter Recess
(No Classes; Campus Open)
 March 2, Mon. Classes Resume
 April 10-12, Fri.–Sun. Spring Recess
(University Closed; Library Open)
 April 18, Sat. Last Day of Classes
 April 20–25, Mon.–Sat. Final Examinations
 April 26, Sun. Commencement
 (Colleges of Arts and Sciences and Technology: 10:30 a.m., Colleges
 of Business, Education, and Health and Human Services: 2 p.m.)
 April 26, Sun. Residence Halls Close
 April 27, Mon. Close of Winter Semester

Spring Session 2009

May 3, Sun. Move-In Day
 May 4, Mon. Classes Begin
 May 25, Mon. Memorial Day
(University Closed)
 June 15, Mon. Last Day of 6-Week Classes
 June 24, Wed. Last Day of 7½-Week Classes
 June 24, Wed. Residence Halls Close
 June 25, Thurs. Close of Spring Session

Summer Session 2009

June 28, Sun. Move-In Day
 June 29, Mon. Classes Begin
 July 3-4, Fri.–Sat. Independence Day
(University Closed)
 Aug. 10, Mon. Last Day of 6-Week Classes
 Aug.19, Wed. Last Day of 7½-Week Classes
 Aug. 19, Wed. Residence Halls Close
 Aug. 20, Mon. Close of Summer Session

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 comprehensive 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 Office of Graduate Studies and Research. 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 2006, 23,000 undergraduate and 4,650 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 University in Ypsilanti.

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; 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 (*historic 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 affiliated 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 and Gender 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 (<i>Community, college and school counseling programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs.</i>)	
Department of Special Education (<i>Speech-language pathology program accredited by the American Speech-Hearing Association; hearing impaired program accredited by the Council on Education for the Deaf.</i>)	
Department of Teacher Education (<i>accredited by the National Council for the Accreditation of Teacher Education</i>)	
College of Health and Human Services	
School of Health Promotion and Human Performance (<i>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</i>)	
School of Health Sciences (<i>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</i>)	
School of Nursing (<i>accredited by the Commission on Collegiate Nursing Education</i>)	
School of Social Work (<i>accredited by the Council on Social Work Education</i>)	
College of Technology	
School of Engineering Technology (<i>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.</i>)	
School of Technology Studies (<i>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.</i>)	
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The Undergraduate Experience

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Admissions

Undergraduate Policies and Information

Admission

The following sections: tuition and fees, financial aid, academic procedures and graduation requirements represent the official policies of Eastern Michigan University as adopted by its Board of Regents.

Eastern Michigan University is open to students who have the potential to succeed academically as determined by a review of official high school records and/or college records. Admission to the University is based on a combination of factors including, but not limited to, the review of high school or college grade point average, high school or college curriculum and scores on standardized tests.

Acceptance into the University is dependent upon meeting the admission criteria described below. Eastern Michigan University admits students at the freshmen and transfer level to the University. Added admission is required for the College of Business and the College of Education, as well as for several individual programs. Some academic programs are designed to include courses from more than one college.

The Admissions Office, 401 Pierce Hall, provides information to meet the various needs of prospective students. The Academic Advising Center, 301 Pierce Hall, assists students in selecting courses applicable to their planned programs or appropriate to their academic needs after the students have been admitted to the University.

Application for admission to the University requires completion of an admission application, submission of an official high school transcript and/or official college transcript and a nonrefundable application fee of \$30 for mailed application or \$20 for an online application. Required supporting documentation may vary depending on the category of admission.

Freshman Applicants

Freshman applicants entering college for the first time must submit official high school transcripts with grades posted through the sixth semester of high school, official college transcripts if dually enrolled in high school and college, standardized test results from either the ACT or SAT and the \$30 nonrefundable application fee. Evidence of graduation is required after admission (if still in high school). Evidence of graduation or the General Educational Development (GED) certificate is required if the applicant is no longer attending high school. Applicants over 21 years of age should refer to the nontraditional category. Applications are available on the Admissions web site (www.emich.edu/admissions/apply).

Transfer Applicants

Students who have enrolled in classes at a college or University other than Eastern Michigan University must provide an official transcript of credit hours attempted and earned from each institution attended. Transfer applicants may also be required to submit an official high school transcript (or GED certificate). Applicants under the age of 21 who have earned fewer than 12 credit hours of transferable credit (18 quarter hours) are also required to submit results of the ACT or SAT. Information about the MACRAO Agreement can be found in the Graduation Requirements section of this catalog. Applications are available on the Admissions web site (www.emich.edu/admissions/apply).

Nontraditional Students

Applicants who are 21 years of age or older and have a high school diploma or GED but have not attempted college work previously may be considered for admission without further requirements. Evidence of the high school diploma or GED is required. Nontraditional students may be required to take selected tests for advising and course placement purposes. Applications are available on the Admissions web site (www.emich.edu/admissions/apply).

Veterans

Persons who have served, or are serving, in the U.S. Armed Forces will be admitted upon receipt of verification of high school completion, or its equivalent, and documentation verifying military duty. If the person has attempted college work since release from service, or while serving, the applicant will be reviewed as that of a transfer student.

Re-enrollment

Former EMU students desiring to re-enroll at EMU after an absence of two years should make application in the Office of Records and Registration, 303 Pierce Hall, at least one month prior to the first day of classes. The applicant should complete the application and return it to the same office. A printable re-enrollment form is available on the Admissions web site (www.emich.edu/admissions/apply). Students may also apply on the Web.

Students who have a past due obligation to the University must clear their obligation through the Student Accounting Office, 201 Pierce Hall, before they will be allowed to register.

Students who have attended any institution of higher education since being enrolled at EMU must have an official transcript sent from that institution to the Office of Records and Registration.

If absence from EMU was by request of the University due to academic dismissal, the student must initiate re-admission with the Academic Advising Center, 301 Pierce Hall.

Guest Students

Guest students are admitted (provided space is available) when regularly matriculated and in good standing at another regionally accredited college or University. The student assumes full responsibility for determining whether or not the courses selected at this University will apply to his/her program of study. While at EMU, the student is subject to Eastern Michigan University's academic policies and student code of conduct. Application for admission as a guest student may be obtained either at the student's home institution or EMU's Office of Admissions. Guest applicants who possess a bachelor's degree must apply as a graduate student through the Office of Admissions.

Dual Enrollment

Dual enrollment may be approved for a student whose primary enrollment is in a high school provided space in the classroom is available. Applicants must submit a high school transcript, obtain high school and parental approval, and meet current academic eligibility requirements for that program.

International Student Applicants

International student applicants are welcomed by the University, which is authorized under federal law to enroll nonimmigrant alien students. They may apply for admission to any semester and will need the following documentation in support of the application:

1. A completed application for admission.
2. Official documents of transcripts of academic credit or true attested copies of official documents. (If the documents are not in English, they must be accompanied by an official English translation).
3. Evidence of proficiency in the English language (e.g., TOEFL, IELTS or MELAB). In some cases, foreign students will be required, as a condition of admission, to take one or more courses in spoken or written English as a second language (ESL).
4. A statement of financial responsibility covering the total cost of attending the University.

Undergraduate foreign students' English proficiency requirements are listed under the Department of Foreign Languages and Bilingual Studies, see page 98.

For answers to your questions about admission to Eastern Michigan University, call 734.487.3060 or 800.GO-TO-EMU (800.468.6368).

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:

Undergraduate TOEFL (CBT).....	173
Undergraduate TOEFL (PBT).....	500
Undergraduate TOEFL (iBT).....	TBD
Undergraduate MELAB.....	72
Undergraduate IELTS.....	6.0
Graduate TOEFL (CBT).....	213
Graduate TOEFL (PBT).....	550
Graduate TOEFL (iBT).....	79
Graduate MELAB.....	77
Graduate IELTS.....	6.5

*Some graduate programs require higher scores. Check with the program department.

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, NJ 08541-6155
Phone: 609.771.7100
Web site: www.toefl.org

For information on the MELAB, contact:

English Language Institute
University of Michigan
3020 NUBS
Ann Arbor, MI 48109
Phone: 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.

Post-Baccalaureate Academic Options

Please refer to the EMU Graduate catalog if you are pursuing a master's degree or would like to take graduate-level courses for self-improvement.

Post-Baccalaureate Certification Programs

Post-baccalaureate certification programs are designed for individuals who have a bachelor's degree or higher who want to obtain a teaching certificate. The number of additional courses required to obtain a certificate will vary for each individual, depending on how many program requirements are met by courses taken as part of the bachelor's degree. The elementary education test and subject matter tests of the MTTC must be passed prior to recommendation for certification.

Information on curricula for obtaining elementary and secondary certification is listed under the Department of Teacher Education. Information on obtaining an endorsement in any area of special education while obtaining an elementary or secondary teaching certificate can be found under Department of Special Education. Information on obtaining certification in specialized programs (e.g. art, business education, marketing education, technology and design, music, physical education) must be obtained through the department that houses the program.

Second Bachelor's Degree

Students who wish to obtain a second bachelor's degree should apply as a second bachelor's candidate through the Office of Admissions, 401 Pierce Hall. The office requires an undergraduate application, a nonrefundable application fee and official transcripts from each college, University or other postsecondary school attended.

After the admission process is complete, the prospective candidate must make an appointment with an adviser for second bachelor's degree programs in the Academic Advising Center, 301 Pierce Hall (734.487.2171) for evaluation of transcripts and development of a program of study.

- All second bachelor candidates must complete a minimum of 30 new credit hours through Eastern Michigan University.
- Course work taken prior to entering a second bachelor degree program may be applied, provided the grade earned was a C or higher.
- All candidates must satisfy all school/college/department and program requirements for the degree.
- Only EMU alumni can receive additional majors or minors to be posted to their first degree.
- Candidates whose prior undergraduate GPA was less than 2.5, and who wish to pursue Teacher Certification, must declare a non-teaching major and graduate with the Second Bachelor's Program before student teaching.
- Students whose prior undergraduate GPA was 2.5 or above, who wish to enter a Teaching Certification Program, need to contact the Teacher Certification Office in the College of Education (734.487.0275). The Second Bachelor Program does not process certification programs of study.

Each program is individually designed and must be approved by appropriate faculty advisers as well as the second bachelor program.

Teacher Certification

Students who possess a bachelor's degree and are seeking teacher certification should contact the Teacher Certification Office in the College of Education (734.487.0275) for an advising appointment. Candidates whose undergraduate GPA was less than 2.5 should apply as a second bachelor's candidate (see Second Bachelor's Degree above). Candidates whose undergraduate GPA was 2.5 or better should apply using the undergraduate application.

Transfer Information

Community College Relations

Patricia Cygnar, director
Address: 229 Rackham Building
Phone: 734.487.6577
E-mail: pat.cygnar@emich.edu
Web site: www.emich.edu/ccr

The Office of Community College Relations works collaboratively with the faculty and staff of EMU and Michigan community colleges to enhance the educational transition process for community college students. Our purpose is to promote a seamless transfer process, which minimizes the loss of academic credit and time in obtaining a bachelor's degree. Many EMU academic programs have signed articulation agreements with community colleges. Program articulation agreements coordinate the curriculum requirements for both an associate degree and a bachelor's degree in a program area. Students who use an articulation agreement may receive credit

for courses or blocks of courses that do not transfer outside of the agreement. The agreement also provides a curriculum guide that, if followed, minimizes the possibility of taking the wrong courses. Community college students should check with their counselor or program adviser about the availability of articulation agreements, or visit the CCR web site (www.emich.edu/public/ap/ccr).

CCR activities include:

- Facilitating the development of program articulation agreements;
- Facilitating collaborative arrangements with community colleges (such as faculty meetings and professional workshops, joint promotion of articulated programs and joint sponsorship of student activities);
- Maintaining and updating articulation agreements;
- Maintaining a web site with articulation curriculum guides and information on the status of articulation agreements;
- Providing support to community college faculty and staff regarding transfer student issues including articulation and transfer equivalency;
- Working with the Academic Advising Center to facilitate credit equivalency for transfer students;
- Providing articulation information to the EMU Advising Centers;
- Collaborating with the Admissions Office and Academic Advising Center in sponsoring the Community College Counselors' Day and other activities;
- Recommending improvements in the admissions process for transfer students

The MACRAO Agreement

Eastern Michigan University is a signature of the MACRAO (Michigan Association of Collegiate Registrars and Admissions Officers) agreement. The purpose of this agreement is to ensure that students who complete a specified distribution of general education courses at a Michigan community college will have satisfied all or most of the general education requirements at signatory four-year colleges. Eastern Michigan University accepts the MACRAO agreement with the following provision:

Students who have been certified by a signatory community college as having satisfied the general education requirements of the MACRAO Agreement will be required to fulfill only the three additional requirements now a part of Eastern Michigan University's general education requirements: a quantitative reasoning course (unless waived by ACT or SAT scores); a U.S. diversity or global awareness course, and a learning beyond the classroom experience course. This agreement applies only to general education and does not exempt the community college students from meeting all curriculum and graduation requirements.

Articulation Agreements

Articulation agreements between Eastern Michigan University and other two-year colleges allow students to complete an associate degree and transfer into a related bachelor's degree program with minimum duplication of coursework and loss of credit. Articulation agreements list the courses that will transfer to Eastern Michigan University and show how they fulfill requirements toward completion of the bachelor's degree program. Articulation Agreement Guides are available on-line at www.emich.edu/ccr.

The following community colleges have program articulation agreements with EMU:

Concordia University
Physics Major (Secondary Education-Physics)

Delta Community College
Business, B.B.A.
Legal Assistant — Paralegal Studies, B.S.
Technology Management, B.S.

Henry Ford Community College
Applied Technology, B.S.
Business, B.B.A.
Electronic Engineering, B.S.
Elementary Education, B.S.

*Health Administration, B.S.
Hotel Restaurant Management, B.S.
Legal Assistant — Paralegal Studies, B.S.
Nursing Completion, B.S.N.
Secondary Education, B.S.
Technology Management, B.S.

Jackson Community College
Legal Assistant — Paralegal Studies, B.S.
Social Work, B.S.
Technology Management, B.S.

Lansing Community College
Business, B.B.A.
Elementary Education, B.S.
Nursing Completion, B.S.N.

Logan College of Chiropractic
Biology/Pre-Chiropractic

Macomb Community College
Applied Technology, B.S.
Computer Information Systems, B.B.A.
Legal Assistant — Paralegal Studies, B.S.
Technology Management, B.S.

Monroe County Community College
Applied Technology, B.S.
*Business, B.B.A.
*Computer Information Systems, B.B.A.
Construction Management, B.S.
Nursing Completion, B.S.N.
Social Work, B.S.
Technology Management, B.S.

Mott Community College
Applied Technology, B.S.

Oakland Community College
Applied Technology, B.S.
Business, B.B.A.
Construction Management, B.S.
Legal Assistant — Paralegal Studies, B.S.
Social Work, B.S.
Technology Management, B.S.

Owens Community College
Applied Technology, B.S.
Business, B.B.A.
Dietetics

Schoolcraft College
Applied Technology, B.S.
Business, B.B.A.
Communication Technology, B.S.
Health Administration/Information Technology, B.S.
Hotel and Restaurant Management, B.S.
Nursing Completion, B.S.N.
Social Work, B.S.
Technology Management, B.S.

University of Detroit-Mercy
Pre-engineering

Washtenaw Community College
Applied Technology, B.S.
Business, B.B.A.
Computer Information Systems, B.B.A.
Construction Management, B.S.
Criminology and Criminal Justice, B.A. or B.S.
Elementary Education, B.S.
Health Administration/Radiography, B.S.
Hotel and Restaurant Management, B.S.
Industrial Distribution, B.S.

Legal Assistant — Paralegal Studies, B.S.
Nursing Completion, B.S.N.
Secondary Education, B.S.
Social Work, B.S.
Technology and Design Education, B.S.
Technology Management, B.S.

Wayne County Community College District
Applied Technology, B.S.
Nursing Completion, B.S.N.
Social Work, B.S.
Technology Management, B.S.

Academics

Degrees

Basic undergraduate degrees conferred by the Board of Regents on recommendation of the president and faculty are the bachelor of science (B.S.) and the bachelor of arts (B.A.) degrees, described fully in the introduction to the College of Arts and Sciences.

Bachelor's degrees are also awarded in fine arts (B.F.A.) and art education (B.A.E.) — see Department of Art, College of Arts and Sciences; business administration (B.B.A.) — see College of Business; bachelor of business administration and bachelor of arts in language and world business (B.B.A./B.A.) — see College of Business or Department of Foreign Languages, College of Arts and Sciences; business education (B.B.E.) — see Department of Business and Technology Education, College of Technology; music education (B.M.E.), music-performance (B.M.U.), and music therapy (B.M.T.) — see Department of Music and Dance, College of Arts and Sciences; nursing (B.S.N.) — see Department of Nursing, College of Health and Human Services.

Many students also select preprofessional fields of study such as medicine, dentistry and forestry (listed in departments) or seek certification and/or licensing in teaching, medical technology and similar fields (listed at the end of this section). These preprofessional fields of study do not culminate in an EMU degree.

Graduate degrees offered by this University are: master of arts, master of science, master of fine arts, master of business administration, master of public administration, master of business education, master of individualized studies, master of social work, master of nursing, master of occupational therapy and master of liberal studies. In addition, there is a specialist in arts degree and doctorates in educational leadership, psychology and technology. All are listed in the graduate catalog.

Bachelor's degree programs require all students to take courses in various subject areas as specified both in the general education requirements and in departmental majors and minors.

Majors/Minors

Each student must complete a major subject of at least 30 credit hours and a minor subject of not less than 20 credit hours with the following exceptions:

1. A student on the elementary teaching curriculum may present three minors of not less than 20 credit hours — each of which are subject fields taught in the elementary grades.
2. A student who completes a self-contained curriculum of 50-60 hours will automatically satisfy major/minor requirements.

Hours of credit counted on a minor may not be applied to a major or another minor or vice versa. General education courses may be applied toward a major or a minor where appropriate.

Professional education courses do not count toward majors and minors except in cases in which such courses are specifically required or indicated as permissible as part of a major or minor.

All students, including transfer students, must complete at Eastern Michigan University the following minimum requirements in advanced

courses numbered 300 or above in their majors and minors, unless specifically exempted by the department concerned:

1. At least nine hours in majors.
2. At least six hours in minors.
3. At least 15 hours in curricula that encompass both major and minor requirements.

Degree Requirements

Residency: candidates for the bachelor's degree must earn at least 30 semester hours at Eastern Michigan University. These 30 hours may be taken on or off campus.

Of the *last* 30 semester hours, prior to the granting of a bachelor's degree, at least 10 hours must be taken in courses offered by Eastern Michigan University. These 10 hours may be taken either on or off campus.

Students with credit from a junior or community college must earn a minimum of 60 semester hours exclusive of junior or community college credit. This rule is waived if a specially designated program-to-program articulation agreement is involved and if that agreement is approved by the appropriate Eastern Michigan University departmental faculty, department head and college dean and a Provost's office representative.

Subject limitation: No more than 60 hours in any one academic department may be applied toward the minimum of 124 hours required for a bachelor's degree.

Distance Education/Independent Learning credit: no more than 15 credit hours of correspondence course credit may be applied toward a bachelor's degree, or used to meet any of the residence requirements. There is no restriction on other types of distance learning or independent learning course formats, which may be applied toward a bachelor's degree, residency and grade point average.

Minimum GPA: students will not be graduated if their grade point average in their degree program (major and minor) is less than 2.0. Credit earned at EMU must average at least 2.0.

Students majoring in physical education or dance may apply the minimum number of hours in activity courses required for their respective majors to the minimum 124 credit hours required for graduation.

All grades received in physical education activity courses, including those which exceed the credit hour limits prescribed above, are used in computing the student's GPA.

Military Service/Science: students who have been in military service will be granted credit in Military Science and Leadership as follows:

1. Those who have served for one year in the Army, Navy, Air Force, Marine Corps, Coast Guard (including attendance at service academies) will be given credit for the first two years of Military Science and Leadership; those who have served for six months in service will be given credit for the first year of Military Science and Leadership.
2. Students who have completed the final two years of Army JROTC (junior and senior level) may receive credit for EMU Military Science and Leadership courses MSL101 and 102, after conducting an interview with the Professor of Military Science and Leadership. Students completing all four years may receive credit for not only MSL100-level but also 200-level courses, after an interview and assessment of JROTC performance by the Professor of Military Science and Leadership.

Veterans who are awarded credit for Military Science and Leadership under 1. above are, nevertheless, eligible to enter the advanced course voluntarily, if qualified, and should consult the Department of Military Science and Leadership on special opportunities that are available (see Department of Military Science and Leadership Advanced Program).

Military Science and Leadership courses are credited in the 124 minimum credit-hour requirement for the bachelor's degree.

Graduation Application

Candidates for a degree and/or certificate must make formal application for graduation during the first two weeks of the final semester or session. (The application should be made after final registration is complete but not

CLEP Credit Available by Departments

Department	Exam/Subject	Minimum Score	Credit Awarded
Accounting and Finance	Accounting, Principles of	60	ACC240 (3 hrs)
Biology	Biology	50 60	BIOL105 (4 hrs) BIOL110 (5 hrs)
Chemistry	Chemistry	50 63	CHEM121 (3 hrs) CHEM121 (3 hrs), CHEM122 (1 hr) and CHEM123 (3 hrs)
Computer Information Systems	Information Systems and Computer Applications	50	IS215 (3 hrs)
Economics	Macroeconomics, Principles of Microeconomics, Principles of	50 50	ECON201 (3 hrs) ECON202 (3 hrs)
English	Freshman College Composition*	50 65	ENGL121 (3 hrs) ENGL121 (3 hrs) and ENGL225 (3 hrs)
	English Literature*	50 65	LITR100 (3 hrs) LITR100 (3 hrs) and LITR101 (3 hrs)
	American Literature*	50 65	LITR100 (3 hrs) LITR100 (3 hrs) and LITR101 (3 hrs)
	Analyzing & Interpreting Literature*	50 65	LITR100 (3 hrs) LITR100 (3 hrs) and LITR101 (3 hrs)
	English Composition with essay	50 65	ENGL120 (3 hrs) ENGL120 (3 hrs) and ENGL121 (3 hrs)
	Humanities	50 65	LITRBAS (3 hrs) LITRBAS (3 hrs) and LITRBAS (3 hrs)
Foreign Languages	French Language	50 62	FRNH121 (3 hrs) FRNH121/122 (6 hrs)
	German Language	50 63	GERN121 (3 hrs) GERN121/122 (6 hrs)
	Spanish Language	50 66	SPNH121 (3 hrs) SPNH121/122 (6 hrs)
History	U.S. History I U.S. History II Western Civilization I Western Civilization II	50 50 50 50	HIST123 (3 hrs) HIST124 (3 hrs) HIST101 (3 hrs) HIST102 (3 hrs)
Management	Management, Principles of	70	MGMT000 (3 hrs)
Marketing	Business Law, Introductory Marketing, Principles of	70 70	LAW293 (3 hrs) MKG000 (3 hrs)
Mathematics	College Algebra Precalculus	50 50	MATH105 (3 hrs) MATH112 (3 hrs)
Political Science	American Government	50	PLSC112 (3 hrs)
Psychology	Psychology, Introductory	50	PSY101 (3 hrs)
Sociology	Sociology, Introductory	50	SOCL105 (3 hrs)

*essay required

later than the last day of program adjustment for the semester or session in which the student expects to graduate.)

Application forms, obtained in the Office of Records and Registration, 303 Pierce Hall, must be submitted with the \$90 graduation fee to the Cashier's Office, 201 Pierce Hall, or charged to the student's account.

Failure to meet the application deadline will result in the candidate's graduation being delayed until the following graduation period. Failure to satisfy degree requirements, including the removal of incompletes in required courses or providing official transcripts for course work taken at other colleges or universities, will necessitate that the student file a new application for graduation for the subsequent graduation period. However, only one application fee is required.

Financial obligations must be met before students may receive their diplomas.

Alternative Methods for Earning University Credit

Alternative Credit Options

Eastern Michigan University offers students the opportunity to earn academic credit by examination and/or by portfolio. In some instances, students may enroll immediately in advanced courses through various alternative programs. Especially high test scores may warrant additional academic credit and/or higher placement.

These programs include:

1. **Advanced Placement (AP).** Students who have taken Advanced Placement high school courses and have at least a three on the corresponding Advanced Placement tests, will be granted at least two hours of credit in each of the subject areas in which they have earned that score.

Advanced Placement Credit Available by Departments

Department	Exam/Subject	Minimum Score	Credit Awarded
Art	History of Art	3	ART101 (3 hrs)
		4	ART107 (3 hrs)
	Studio Art: 2-D or 3-D Design, or drawing portfolio <i>Note: An additional three credit hours may be awarded to art majors and minors through departmental evaluation of art portfolio.</i>	3	ART179 (3 hrs) or ART379 (3 hrs)
Biology	Environmental Science	3	BIOL224 (4 hrs)
	Biology	3	BIOL110 (5 hrs)
		4	BIOL110/120 (10 hrs)
Chemistry	Chemistry	3	CHEM121 (3 hrs) and CHEM122 (1 hr)
		4	CHEM121(3 hrs), CHEM122 (1 hr) and CHEM123 (3 hrs)
		5	CHEM121(3 hrs), CHEM122 (1 hr) CHEM123 (3 hrs) and CHEM124(1 hr)
Computer Science	Computer Science A	3	COSC111 (3 hrs)
	Computer Science AB	4	COSC111 (3 hrs) and COSC211 (3 hrs)
Economics	Macroeconomics	3	ECON201 (3 hrs)
	Microeconomics	3	ECON202 (3 hrs)
English	English Language	3	ENGL121 (3 hrs)
		4	ENGL121 (3 hrs) and ENGL225 (3 hrs)
	English Literature	3	LITR100 (3 hrs)
	4	LITR100 (3 hrs) and LITR101 (3 hrs)	
Foreign Languages	French Language or French Literature	3	FRNH121 (5 hrs)
		4	FRNH122 (5 hrs)
	German Language	3	GERN121 (5 hrs)
		4	GERN122 (5 hrs)
	Latin: Vergil or Literature	3	LATN121 (5 hrs)
		4	LATN122 (5 hrs)
	3	SPNH121 (5 hrs)	
	4	SPNH122 (5 hrs)	
Geography	Human Geography	3	GEOG179 (3 hrs)
History	United States History	3	HIST123 (3 hrs)
		4	HIST123 (3 hrs) and HIST124 (3 hrs)
	European History	3	HIST101 (3 hrs)
		4	HIST101 (3 hrs) and HIST102 (3 hrs)
	World History	3	HIST109 or HIST110 (3 hrs)
	4-5	HIST109 (3 hrs) and HIST110 (3 hrs)	
Mathematics	Calculus AB	3	MATH120 (4 hrs)
	Calculus BC	3	MATH120 (4 hrs) and MATH121 (4 hrs)
	Statistics	3	MATH170 (3hrs)
Music and Dance	Music Theory	3	MUSC100 (3 hrs)
Physics	Physics B	3	PHY221 (4 hrs)
		4	PHY221 (4 hrs) and PHY222 (4 hrs)
	Physics C	3	PHY223 (5 hrs) and PHY224 (5 hrs)
Political Science	Government and Politics, U.S.	3	PLSC112 (3 hrs)
	Government and Politics, Comparative	3	PLSC211 (3 hrs)
Psychology	Psychology	3	PSY101 (3 hrs)
Sociology	Statistics	3	SOCL250 (3 hrs)

The Advanced Placement Credit Available by Departments table lists departments and courses for which credit can be earned.

- International Baccalaureate (IB).** Students who submit their IB scores to Eastern Michigan University will receive at least two hours of academic credit for a score of four or higher on the higher-level IB exam. The International Baccalaureate Diploma does not equate automatically with sophomore standing, nor does it automatically waive general education requirements.
- College Level Examination Program (CLEP).** Students may receive academic credit for certain EMU courses by achieving a minimum score on a test available through the College-Level Examination Program. The courses for which CLEP tests are available, and the minimum score needed to receive credit, are listed in the CLEP Credit Available by Departments table.

Academic credit earned by means of AP, IB or CLEP test scores may not be duplicated for separate tests. Also, AP, IB or CLEP credit will not be awarded when EMU credit has already been earned or transfer credit awarded for courses covering the same subject matter.

- Credit by examination.** Students may also receive academic credit for certain courses where CLEP tests are not available by achieving a minimum score on a departmentally-administered examination. Credit by Examination is subject to the following limitations:
 - A student must have been admitted to Eastern Michigan University.
 - Credit normally will not be awarded for any course for which the student has credit or in which the student is currently enrolled.

- Credit by Examination is not available for workshops, special topics courses, seminars and directed studies, or any other course excluded by an academic department.
5. **Validation.** Validation may be required to earn transfer credit for courses taken at a two-year college whose content is sufficiently similar to that of 300- and 400-level EMU courses. Validation will be considered only after all other transfer credit earned at accredited two-year colleges has been awarded and recorded on the student's official EMU record. Validation may be achieved in either of two ways:
- Satisfactory completion of the next more advanced course as designated by the head of the appropriate department or school
 - Or
 - Passing a comprehensive examination or equivalent activity in the course for which EMU validations is requested.

The following procedures must be followed to earn either Credit by Examination or to validate a course by examination:

1. The student must obtain an Application for Credit by Examination/Validation at the Office of Records and Registration in 303 Pierce Hall.
 2. The student should submit the application to the head of the department/school in which the course is offered. The department head will evaluate the request and determine whether to grant or deny permission for Credit by Examination/Validation, or to hold the request for further investigation.
 3. Once permission has been granted, the student will make arrangements with the department on a time and place for the examination or equivalent activity, and a supervising faculty evaluator.
 4. Prior to the agreed upon time, the student will validate the permission form by paying the fee to the EMU Cashier's Office. The fee will be equivalent to one credit hour of tuition for each undergraduate examination attempted.
 5. The student will present the validated permission form to the faculty evaluator prior to the examination or equivalent activity.
 6. After the faculty member evaluates student performance and indicates P/F on the permission form, a copy of the written examination or explanation of the activity as well as the instructor's total evaluation will be placed on file in the office of the department head. The department head will sign the permission form indicating receipt of the faculty member's evaluation.
 7. The department head will forward the permission form to the Office of Records and Registration for posting to the student's record.
6. **Portfolio-assisted Prior Learning Assessment (PLA).** Portfolio-assisted Prior Learning Assessment is available through participating academic departments when CLEP, credit by examination and validation are not appropriate in assessing the student's previous learning. Credit may be awarded for general education or for courses in majors, minor or concentrations. Departments or schools may choose to participate on a case-by-case basis or may designate selected courses available via PLA. Additional information is available through the Office of Prior Learning Assessment at 734.487.9801 or 800.777.3521.

Academic standards for portfolio-assisted Prior Learning Assessment are:

- Credit is given only for learning and not for experience.
- College credit is awarded only for college-level learning.
- Credit is awarded only for learning that has a balance, appropriate to the subject, between theory and practical application.
- The determination of competence levels and credit awards is made by academic experts in the appropriate subject matter.
- Credit is appropriate to the academic context in which it is accepted.

Procedures for portfolio-assisted Prior Learning Assessment are:

1. The student contacts the PLA Office for information about the PLA process.
2. The student must be admitted to Eastern Michigan University.
3. The student must complete a free workshop and review syllabi to determine whether to attempt earning credit through the PLA process.
4. The student compiles portfolios to present for assessment within one year of completion of the workshop. Each portfolio to be presented to a faculty assessor contains all portfolio elements including appropriate documentation. The master portfolio contains each portfolio element including all learning statements and all documentation lists but no copies of documentation.
5. The student must present the master portfolio and departmental portfolios to the Office of Prior Learning Assessment for review. Upon successful review, the PLA office issues appropriate portfolio registration forms.
6. The student pays the required assessment fee to Eastern Michigan University as part of portfolio registration.
7. The Office of Prior Learning Assessment distributes portfolios to heads of departments or schools for assignment to faculty assessors.
8. Faculty assessors evaluate the portfolios; faculty assessors may request additional demonstrations of competence.
9. Faculty assessors return portfolios and assessments to the Office of Prior Learning Assessment.
10. The Office of Prior Learning Assessment notifies the student of credit award or denial and also notifies the Office of Records and Registration of awarded credit for posting to the student's record.

Academic Advising Services

Academic Advising Center

Patricia L. Williams, director
Address: 301 Pierce Hall
Phone: 734.487.2170
Web site: www.emich.edu/aac

The Academic Advising Center (AAC) provides help and guidance to students and faculty through a variety of activities. It has four major areas of responsibility: academic advising, retention support, academic actions and academic services. Each of these is concerned with the student's total welfare.

The AAC is the central coordinating service for academic advising activities for all new and currently enrolled students and faculty and staff. It is the first formal academic advising contact on campus for most new students. Advisers in the center assist students as they evaluate academic goals and objectives, design programs and select major/minor choices. The AAC coordinates advising training for new faculty and professional advising staff and provides a resource to answer general advising questions. The center also coordinates and administers the second bachelor's degree program, the individualized studies program and the three-year accelerated baccalaureate program.

Retention support includes the following: administration of the Promote Academic Survival and Success (PASS) program; administration of the FIG (Freshmen Interest Group) program; the General Education Review program for all new freshmen; assistance to students in the Summer Incentive Program (SIP); and assistance to students on academic probation.

Academic actions involves the central administration and enforcement of the academic probation, dismissal and readmission policies established by the Academic Standards Committee and the University.

The AAC provides the following academic services: (1) CLEP (College Level Examination Program) testing; (2) Pass/Fail grade options; (3) administrative and retroactive withdrawal requests; (4) general education requirement waivers for English and mathematics; and (5) application of transfer credit to the general education requirements.

Initial advising for all new undergraduate students (except new music majors and new transfer art majors) is provided by the Academic Advising

Center. Continuing undergraduate students who have not declared a major should also seek their academic advising in the AAC. Students can declare or change their major and minor through the Academic Advising Center.

Students with declared majors should seek academic advising with a faculty adviser in the department of their major. Supplemental academic advising for students with declared majors can be found in the following centers:

College Advising Centers

College of Business Advising Center
Address: 401 Owen Building
Phone: 734.487.2344

College of Education Advising Center
Address: 206 Porter Building
Phone: 734.487.3415

College of Health and Human Services Advising Center
Address: 302 Marshall Building
Phone: 734.487.0918

College of Technology Advising Center
Address: 150 Sill Hall
Phone: 734.487.8659

Individualized Studies Program

Academic Advising Center
Address: 301 Pierce Hall
Phone: 734.487.2171

Undergraduate students whose educational and career goals cannot be met by existing programs of study may wish to explore the option of the individualized studies program. The basic criteria for completing this program is:

1. a total of 60-63 credits;
2. three distinct discipline areas, the courses of which have a common thread;
3. each area consisting of a minimum of 20 credits, with a combination of foundation and advanced course work and;
4. a minimum of 15 credits in advanced (300/400 level) course work taken through EMU.

Interested students should contact the Academic Advising Center for more information. Students who wish to be considered for this program will begin by submitting a proposal through the program coordinator in the Academic Advising Center. The proposal will be reviewed by a representative of the Office of the Provost. If approved, the proposal will serve as the basis for future course work and the program coordinator will serve as academic adviser to the student. When the student is ready to apply for graduation, a final draft of the program will be submitted by the student and the program coordinator to the Office of the Provost for final approval. The final, approved program will be submitted to Records and Registration for use in the graduation audit; the student will also receive a copy of the approved program at that time.

The resulting degree will be a bachelor of science (or art, if conditions for that have been met) in individualized studies, which will satisfy all major/minor requirements. All other conditions for graduation still must be met by individualized studies majors. Only first time undergraduates are eligible for this program; second bachelor's candidates may not select this option. This is a nonteaching degree only.

Financial Assistance

During the 2004-2005 school year, Eastern Michigan University provided \$126,256,977 in financial aid to more than 14,500 students in the form of scholarships, grants, awards, GA tuition/stipends, athletic grants-in-aid, part-time employment and fellowships.

The federal government, state of Michigan, Eastern Michigan University and private sources provide program funding. While most awards are based on financial need, scholarships often have academic achievement requirements or other eligibility criteria.

Federal and state aid is awarded to help pay college costs based on the assumption that parents and students will contribute as much as they are financially able. To the extent that the family does not have sufficient resources to meet the costs of higher education, students may qualify for need-based financial aid.

Academic Scholarships (also see chart on the next page)

- New freshmen who are admitted by Feb. 15 and transfer students by May 15 for the following fall are considered for scholarships through the EMU Admission application.
- Continuing students apply annually, by completing the University Scholarship Application. Applications are available online in the Office of Financial Aid section in October and are due in January.

Presidential Scholarship — Four-year award that pays 30 credit hours per year of in-state tuition, housing, food allowance and mandatory fees. Awards are based on a competitive exam. Requires an additional application, available at high schools beginning each September. Sixteen awards are made per year. Minimum 3.5 GPA for renewal. Recipients must live in University residence halls their first two years. Deadline to apply is generally November 20 of each year.

Regents Gold Scholarship — Four-year award that pays 30 credit hours per year of in-state tuition and fees. Awarded only to participants in the Presidential Scholarship Competition.

Regents Scholarship — Four-year award that pays \$3,000 per year. High school seniors must have a 3.7 GPA with a 25 ACT or 1150 SAT. Minimum 3.5 for renewal. Recipients must live in University residence halls their first two years. Must be admitted by Feb. 15 for the fall semester (or May 15 for transfer).

Recognition of Excellence Scholarship — Four-year award that pays \$1,500 per year. High school seniors must have a 3.5 GPA with a 21 ACT or 1000 SAT. Minimum 3.3 for renewal. Recipients must live in University residence halls their first two years. Must be admitted by Feb. 15 for the next fall semester (or May 15 for transfer).

National Scholars Program — Four-year award that pays 30 credit hours per year (15 per semester) of out-of-state tuition differential. High school seniors must have a 3.0 GPA with a 21 ACT or 1000 SAT. Minimum 2.5 for renewal. Recipients must live in University residence halls their first two years. Must be admitted by Feb. 15 for the next fall semester.

Wade McCree Scholarship — Eastern Michigan University participates in this scholarship program. The program originates at the high school and determines the student eligibility. Students receiving the scholarship should contact the program administrator about activating their scholarship or transferring remaining scholarship eligibility to EMU. The value of this scholarship is the full cost of tuition less any tuition specific scholarships or grants.

Eagle Scholarship — Four-year award to freshmen that pays \$1,200 per year. Requires 15 credit hours enrollment each semester and 3.0 GPA to renew.

Leader Award — One-year award of \$500. Continuing EMU students must have a GPA of 3.0 and must show volunteer involvement at EMU or in the community for consideration.

Community College Scholarship — One-year award of \$1,000. Transfer students must have completed at least 30 credit hours with a minimum cumulative 3.5 college GPA and must be admitted by May 15 for the next fall semester.

Undergraduate Academic Scholarships

Award	Minimum Requirements	Amount	Freshman Housing Req	Renewal Criteria	Deadline
Presidential Scholarship	Participate in the Presidential Scholarship Competition (PSC)	30 credit hours per year of in-state tuition, housing, food allowance and mandatory fees 4 years	Residence halls for first two years	3.5 Cumulative GPA 15 credit hours each semester	November 20
Regents Gold Scholarship	Participate in the PSC Top 30 Test Scores (Pres Schol alt)	30 credit hours per year of in-state tuition and fees 4 years	Residence halls for first two years	3.5 Cumulative GPA 15 credit hours each semester	November 20
Regents Scholarship	Freshman Participate in the PSC or Admitted by February 15 and 3.7 High School GPA and 25 ACT/1150 SAT Transfer Student 3.7 College GPA and 30 transferable credit hours	\$3,000 per year 4 years	Residence halls for first two years Housing Waiver reduced to \$2,000	3.5 Cumulative GPA 15 credit hours each semester	November 20 or Must be admitted to EMU by February 15 for fall semester or May 15 for transfer students
Recognition of Excellence Scholarship	Freshman 3.5 High School GPA and 21 ACT/1000 SAT Transfer Student 3.5 College GPA and 30 transferable credit hours	\$1,500 per year 4 years	Residence halls for first two years Housing Waiver reduced to \$1,200	3.3 Cumulative GPA	Must be admitted to EMU by February 15 for fall semester or May 15 for transfer students
National Scholars Program	Freshman 3.0 High School GPA and 21 ACT/1000 SAT Transfer Student 3.0 College GPA	30 credit hours per year of out-of-state tuition differential- 4 years	Residence halls for first two years	2.5 Cumulative GPA	Must be admitted to EMU by February 15 for fall semester or May 15 for transfer students
Wade McCree Scholarship	Start program in high school See program adviser for further requirements and more info.	The full cost of tuition less any tuition specific scholarships or grants	No	2.5 Cumulative GPA	
Eagle Scholarship	3.0 High School GPA	\$1,200 per year 4 years	No	3.0 Cumulative GPA 15 credit hours per semester	Must be admitted to EMU by August 1
Leader Award	3.0 Cumulative GPA for continuing EMU students Volunteer at EMU or in the community	\$500 1 year	No		None
Community College Scholarship	Completed 30 credit hours at a community college 3.5 college GPA	\$1,000 1 year	No		Must be admitted to EMU by May 15 for fall semester
Departmental Scholarship	See your departmental adviser for more info.				
Music Service Award	See an adviser from the Department of Music and Dance for more info.				June 1 for fall semester
Communication/Theater Arts Service Award	See an adviser from the Communication and Theater Arts Department for more info.				
Army and Air Force ROTC Scholarship	Contact the ROTC office at 734.487.1020 for more info.				

Departmental Scholarship — Award amounts vary and are made by departments. Selections can be based on academic as well as representative talent within that department or major.

Music Service Awards — Award amounts vary. Awards are made to students who perform in EMU's music programs or provide outstanding service to the Music and Dance Department. Deadline is June 1 for the next fall semester.

Communication/Theatre Arts Service Awards — Awards are made to students who perform in forensics, theatre arts programs or make outstanding contributions to the Communication Theatre Arts Department.

Army and Air Force ROTC Scholarships are also available. Contact the ROTC office at 734.487.1020 for more information.

Many academic scholarships are provided by external sources, including community agencies, service organizations, charitable organizations, civic groups and foundations. Students should investigate these potential resources by checking with public and University libraries for scholarship resource books and by contacting the agencies directly.

Federal and State Financial Aid

To be considered for federal and state aid programs, students complete the Free Application for Federal Student Aid (FAFSA) available through high schools and college financial aid offices beginning each November. The FAFSA must be filed every year to determine eligibility for the upcoming academic year.

Priority funding will be offered to students who receive their Student Aid Report from the FAFSA processor dated March 15 or earlier. To meet this deadline, applications should be filed during the month of January.

General Eligibility Requirements for Financial Aid

By completing the FAFSA, eligible students will be considered for all federal and state aid programs. To receive aid, students must:

- Be enrolled in an eligible program;
- Be a U.S. citizen or an eligible noncitizen;
- Demonstrate need;
- Make satisfactory academic progress toward a degree;
- Not be in default on a federal student loan; and
- Not owe a refund on any Federal Title IV, state or University aid program.

The FAFSA application collects information about family income and assets, family size and the number of family members attending college at least half time. Based on an analysis of this data, the federal government determines the expected family contribution that is identified on the Student Aid Report. The expected family contribution is subtracted from the University's cost of education to determine whether there is a difference between the family's ability to pay and the college budget. Most federal and state programs are awarded based on a student's need.

The cost of education consists of an estimate of direct and indirect expenses. The direct costs are tuition, fees and room and board. The indirect costs are books and supplies, transportation and miscellaneous personal expenses. The cost of education at EMU is determined annually.

The cost of education* for undergraduate students for fall and winter 2006-2007 semesters is:

On-campus	\$16,028
Off-campus	\$16,028
Commuter	\$12,272

Note:

*Estimated and subject to change.

Determination of Need-based Financial Aid Awards

The award process for the upcoming academic year begins in March. Aid is awarded to students once they have been officially admitted to the University and EMU receives the institutional record of the Student Aid Report from the federal government. Once the Office of Financial Aid has determined the aid package, a Financial Aid Award Statement will be made available to the student applicant. The award statement contains information regarding the type and amount of aid, disbursement information and other instructions necessary to complete the aid process.

Financial aid awards are processed and funds disbursed in compliance with established federal, state and institutional policies.

Federal Financial Aid Programs

The maximum amounts of aid described below are subject to change by federal and state regulations or University policy.

Federal Pell Grant — Annual awards of up to \$4,050 are available to undergraduate students who are enrolled and have demonstrated financial need.

Federal Supplemental Educational Opportunity Grant — Awards range from \$100 to \$2,000 per year. Priority is given to students who receive a Federal Pell Grant.

Federal Academic Competitiveness Grant (ACG) — \$750 for first-year and \$1,300 for second-year undergraduate students. To be considered, students must have completed a rigorous secondary (high school) program of study after Jan. 1, 2006; must be Pell Grant eligible and a U.S. citizen.

Federal SMART Grant — \$4,000 per year for full time third and fourth-year undergraduate students majoring in science, computer science, technology, math and some foreign languages. Students must have a 3.0 GPA, be Pell Grant eligible and a U.S. citizen.

Federal Perkins Loan — Annual awards are available to undergraduate and graduate students who are enrolled at least half-time and have demonstrated financial need. Undergraduates may borrow up to \$4,000 per year (\$20,000 maximum) and graduate students may borrow \$6,000 per year (\$40,000 maximum including loans borrowed as

an undergraduate). Priority is given to students who receive a Federal Pell Grant.

Federal Subsidized and Unsubsidized Loan Program — Loans are provided through banks, savings and loan institutions and credit unions. Following is the maximum annual amount a student may borrow, based on academic level:

Freshmen.....	\$3,500
Sophomore.....	\$4,500
Junior/Senior.....	\$5,500

Federal PLUS Loan Program

The Federal Parent Loan for Undergraduate Students (PLUS) is a loan from private lenders to parents of dependent students. Parents may borrow up to the cost of education less any other financial aid (including the Unsubsidized Stafford Loan amount). The PLUS loan is available to parents after a credit check to determine ability to repay. Interest rates are determined by the bond equivalent rate of the 91-day Treasury Bill plus 3.10 percent, not to exceed nine percent. A three percent origination fee is paid directly to the federal government from the loan proceeds. Repayment begins within 60 days after loan disbursement. Repayment may take up to 10 years. Minimum monthly payment is \$50.

Submit a pre-application online at www.emich.edu/finaid/ for a credit check. Upon successful completion of a promissory note, the loan funds are made payable to the parent and Eastern Michigan University. The funds are sent electronically to EMU in two disbursements.

Federal PLUS Loan for Graduate Students

Graduate students may apply for the Graduate PLUS Loan in addition to the Federal Stafford Loan.

Michigan Financial Aid Programs

Michigan Competitive Scholarships — This state-funded scholarship program is based on a combination of ACT tests score and financial need, as determined by completing the FAFSA. Students initially apply by taking the ACT no later than October of their senior high school year. The second step of the application process is to submit the FAFSA. The state has a deadline of March 1 for students to receive a processed FAFSA. Students may annually renew the scholarship by maintaining a 2.0 GPA and demonstrating continued financial need.

Michigan Adult Part-Time Grant — Need-based gift aid available to undergraduates who are enrolled on a part-time basis. Students must meet independent criteria as indicated on the FAFSA. Grants of up to \$600 are available for a maximum of two years.

Michigan Educational Opportunity Grant — Need-based gift aid to undergraduates enrolled at least half time. Students who meet the basic requirements for the Michigan programs are eligible. Grants of up to \$1,000 per year are available.

Michigan Work-Study Program — Need-based program that provides work opportunities for undergraduates. Both nonprofit and profit-based employers may sign agreements with Michigan colleges to participate in this program. Students who meet the basic requirements for the Michigan programs are eligible. Awards range from \$900 to \$3,000 per year.

Verification of Financial Aid Application Information

Applicants selected for verification must provide documentation to prove the accuracy of certain items reported on the FAFSA before aid is disbursed. Major items verified may include:

- Copies of federal income tax returns with schedules
- W-2 forms
- Verification Worksheet
- Most recent year-end statements for:

Child support
Social security benefits
Other forms of income/benefits not included on a W-2
Benefits received from other federal and state agencies

- Documentation of Orphan or Ward of the Court status

The deadline by which verification documentation must be submitted is published annually by the Office of Financial Aid but no later than the student's last date of enrollment for the fiscal year. Failure to submit required documents by the due date will result in the cancellation of financial aid offers.

Payment of Financial Aid

A financial aid file must be complete and verified, if required, before aid is paid to a student's account. The following aid is paid directly to a student's account:

- Federal Pell and Supplemental Educational Opportunity grants
- State of Michigan grants and scholarships
- University grants and scholarships
- Outside scholarships
- Federal Subsidized and Unsubsidized Stafford loans with electronic funds transfer
- Federal Perkins Loans

Proceeds from paper checks from lenders participating in the Federal Subsidized and Unsubsidized Stafford Loan Program will be applied to a student's account once the check is endorsed by the student.

Federal and state college work-study checks are issued directly to students for hours worked on a bi-weekly basis.

Students will be issued a refund through their EagleOne account for aid applied to their account that exceeds the charges on that account. Financial aid will not pay for library fines, late/installment fees, hang tags or telephone charges.

Satisfactory Academic Progress (SAP)

Federal regulations require that students progress satisfactorily toward graduation. Satisfactory Academic Progress is evaluated using three factors: grade point average, percentage of attempted courses completed and maximum credits of eligibility in which to complete a degree. Students who fail to maintain SAP may lose eligibility to receive funds from federal Title IV, state or University need-based aid programs.

Students must maintain the following requirements:

- Undergraduate:** overall GPA of 2.0 or better;
- Graduate:** overall GPA of 3.0 or better;
- Completion of 67 percent of all attempted credit hours;
- Completion of program of study within the maximum of 150 percent of the total program hours, including transfer credits.

Students who do not meet the SAP requirements will be put on probation. Failure to improve SAP while on probation will result in cancellation of future financial aid eligibility.

Students who had extenuating circumstances that resulted in failure to maintain SAP may appeal the cancellation. Students must submit a letter of appeal addressed to the Financial Aid Review Committee and attach third party documentation, as appropriate.

Repayment Policy

Some students who withdraw from all classes before the end of the semester and who have received federal or state aid may be required to repay all or a portion of aid paid.

Financial aid is used for expenses incurred while attending school. Any portion allocated to the weeks the student did not attend classes must be repaid.

Students are notified when funds are returned to their lender and/or when they are required to repay aid. Consult the Office of Financial Aid before dropping a class or withdrawing from all classes to determine whether aid and/or scholarships will be repaid, reduced or cancelled.

Loans without a FAFSA

Students may apply for the following loans without a FAFSA:

University Short Term Loans (USTL) — Available to part-time and full-time students who:

1. are currently enrolled at the University,
2. have earned previous credit at Eastern,

3. qualify academically (minimum GPA of 2.0 "C" undergraduate, GPA of 3.0 "B" graduate),
4. have no past due obligations and
5. have repaid previous loans satisfactorily.

Students may borrow up to \$250 without a co-signer or up to \$500 with a co-signer. Applications may be obtained at the Student Loan Accounting Office, 203 Pierce Hall. Loans are processed within 24 hours, Monday–Friday.

The Small Loan Fund — Provides 30-day, short-term, interest-free loans to \$15 maximum to help students meet an emergency. Loans are available at the Cashier's Office, Pierce Hall.

Tax Information

Grants and scholarships received in excess of qualified tuition, fees, books, supplies and equipment may be taxable income. Students who do not earn enough money to file an income tax return may need to determine if their financial aid makes a difference in their tax filing status. EMU will issue 1098T and 1098E forms to assist in determining taxable income and eligibility to claim the Hope or Lifetime Learning Tax Credits for Student Loan Interest deduction. Contact the IRS with any questions regarding tax issues.

Financial Information and Student Accounts

Tuition and Fees

All University fees and assessments are subject to change without notice at any time by action of the Board of Regents.

Registration

Students must be registered before attending class. The registration fee is \$40 for each semester. This service fee is assessed at the time the student registers.

An additional late registration fee of \$110 per semester is charged to students who do not complete registration prior to the official first day of classes each semester. The last day to register is at the mid-point of the term or session.

Financial obligations must be met by students by the posted due dates in order for students to be eligible for the next registration period (or graduation). Transcripts, diplomas or other statements of record will be withheld and students will be ineligible for further registration until obligations have been fulfilled.

Cancellation of registration by a student who decides not to return to EMU after registering in advance for classes must be initiated by the student on a signed cancellation-of-registration form either in person or by letter to the Office of Records and Registration, 303 Pierce Hall. If students have applied for University housing, they also must cancel the contract in the Housing Office. This is necessary for cancellation of room and board assessments.

Failure to withdraw may leave students with responsibilities for payment of tuition, fees and housing charges that will not be paid by financial aid.

Tuition

Tuition is assessed for all credit hours for which the student is registered. Regardless of student class level, undergraduate tuition is assessed for all courses through the 400-level; graduate tuition is assessed for all courses 500-level or above.

Off-campus tuition rates are the same as on-campus tuition rates (on-line courses, which are offered at in-state tuition rates, cost an additional \$40 per credit hour).

Tuition for auditing classes is the same as for-credit classes.

2006-2007 Michigan and Ohio resident rates, per credit hour:
Undergraduate courses up to 499 \$194.50
Graduate courses lower level (500-699)..... \$340.50
Doctoral assessment upper level (700 and above)..... \$391.75

2006-2007 nonresident rates, per credit hour:	
Undergraduate courses up to 499	\$573.00
Graduate courses lower level (500-699).....	\$671.00
Doctoral assessment upper level (700 and above).....	\$756.35

Residence Classification for Tuition Purposes Policy

I. Regulations for determining residence classification

A person enrolling at Eastern Michigan University shall be classified as a resident or a nonresident for tuition purposes. A student's residence status shall be determined at the time of his/her initial admission to the University. In order to determine the domicile of a student, the following regulations will be utilized:

A. Establishment of Residence

No student shall be eligible for classification as a resident for tuition purposes unless the student has demonstrated that he/she has established domicile in Michigan.

B. Minors and Dependents over 18

The domicile of a student who is not yet 18 years of age follows that of the student's parents or legal guardian. If that student's parents or legal guardian would qualify in accordance with the University's regulations for determining residence classification, that student shall be considered a Michigan resident for tuition purposes.

Students 18 years of age or older who are claimed as dependents for federal income tax purposes by their parents or guardians at the time of registration and for the tax year preceding the year in which they register will be classified for tuition purposes as though they were minors.

C. Nondependent Students

An independent student 18 years of age or older is considered eligible for residence classification if the student has demonstrated that he/she has established domicile in Michigan.

D. Spouse

The domicile of a student who otherwise would be classified as a nonresident for tuition purposes will follow that of the student's spouse, if the spouse is eligible for classification as a Michigan resident for tuition purposes (applicable only to U.S. citizens or to aliens admitted to the United States in accordance with Subsection E).

E. Aliens

An alien (noncitizen) student shall be eligible for classification as a Michigan resident for tuition purposes if he/she is domiciled in the United States and also qualifies in accordance with the University's Regulations for Determining Residence Classification.

In order to demonstrate that he/she is domiciled in the United States, the student must be a permanent resident, or an alien with one of the following visa classifications, or an alien with other documentation from the Immigration and Naturalization Services that reflects such status.

Visa classifications: E-1 — treaty trader, spouse, and children; E-2 — treaty investor, spouse, and children; G-4 — international organization officer or employee and members of immediate family; H-1 — temporary worker of distinguished merit and ability; H-2 — temporary worker performing services unavailable in the U.S.; H-3 — trainee; H-4 — spouse or child of H-1, H-2, or H-3; J-1 — exchange visitor (limited to persons engaged as trainee, teacher, professor or research scholar); J-2 — spouse or child of J-1 as limited above; L-1 — intracompany transferee; L-2 — spouse or child of L-1.

F. Migrants

Migrant status is one factor considered when determining if a student is domiciled in Michigan for tuition purposes. Michigan migrants are defined as individuals who have made their livelihood in seasonal work in the state of Michigan, and have traveled interstate for this purpose. Migrant students shall be considered Michigan residents for tuition purposes if they, or their parents or legal guardian, were employed in Michigan for

at 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.

G. Spouse or Dependent of a U.S. Military Service Person

The spouse or dependent of a person currently serving in a branch of the U.S. military service (excluding reserve programs) or of a person who died while serving in a branch of the U.S. military service shall be eligible for classification as a Michigan resident for tuition purposes if that military service person qualified in accordance with the University's regulations for determining residence classification immediately before entering the military service as a Michigan resident.

H. U.S. Military Service Veteran

A veteran of a branch of the U.S. military service (excluding reserve programs) shall be eligible for classification as a Michigan resident for tuition purposes if that person qualifies in accordance with the University's regulations for determining residence classification immediately before entering the military service as a Michigan resident.

II. Guidelines And Criteria For Determining Residence Classification

Since a student normally comes to Eastern Michigan University for the primary or sole purpose of attending the University rather than to establish domicile in Michigan, one who enrolls in the University as a nonresident shall continue to be so classified throughout his/her attendance as a student, unless and until he/she demonstrates that his/her previous domicile has been abandoned and a Michigan domicile is established.

The following guidelines and criteria shall be applied when reviewing a student's classification. It is recognized that no one of the following criteria shall, standing alone, necessarily be controlling. All factors indicating an intent to make Michigan the student's domicile will be considered by the University in classifying a student.

A. The following facts and circumstances, although not necessarily conclusive, have probative value in support of a claim for residence classification:

1. Domicile in Michigan of family, guardian or other relatives or persons legally responsible for the student.
2. Former domicile in Michigan and maintenance of significant connections therein while absent.
3. Self-supporting reliance upon Michigan sources for financial support (verification of Michigan income tax liability must be provided).
4. Continuous presence in Michigan during periods when not enrolled as a student.
5. Long-term military commitments in Michigan.
6. Acceptance of an offer of permanent employment in Michigan (in a position not normally filled by a student).
7. Ownership of real estate in Michigan.

B. Please note: The following circumstances, standing alone, shall not constitute sufficient evidence of domicile to effect classification of a student as a resident under these regulations:

1. Voting or registration for voting.
2. Employment in any position normally filled by a student.
3. The lease of living quarters.
4. A statement of intention to acquire a domicile in Michigan.
5. Automobile registration, driver's license.
6. Other public record, e.g., birth records.

III. Reclassification of Residence Status

A student's residence status may be reviewed at each subsequent registration. If a student's circumstances should change to the extent that he/she would no longer be considered a Michigan resident for tuition purposes, as herein described, that student shall be reclassified as a nonresident for tuition purposes 12 months thereafter.

It shall be the responsibility of all students, prior to registering, to raise questions in the Student Business Services regarding their right to be registered as a resident for tuition purposes.

The administration is authorized to establish procedures and delegate authority for determining the residence status of students for tuition purposes.

A tuition reciprocity agreement with Ohio, entered into by the Michigan State Board of Education and the Ohio Board of Regents in 1980, allows an Ohio resident to attend Eastern Michigan University at Michigan resident tuition rates. Monroe County residents can attend the University of Toledo at Ohio resident tuition rates.

Tuition and Fee Payment

1. Log into your my.emich.edu e-mail account, or your forwarded my.emich mail. (If you use a forwarded e-mail address, keep it current.) Each month, you will receive an e-mail notifying you that your bill has been posted. It is the student's responsibility to check your e-mail monthly.
2. You will need your E-ID and Personal Identification Number (PIN) to access Ebill, EPay and Payment Plans. At my.emich.edu on the bottom of the first page are instructions to access your E-ID and PIN.
3. View your bill and click on "Current Account Activity" to view transactions that are posted after the bill is issued. You can also go to your profile and add an alternate e-mail address.
4. Pay your bill with your checking account routing number (ACH), MasterCard, American Express or Discover card via PayPath. You may pay your bill in person or by mail at 201 Pierce Hall, Ypsilanti MI, 48197. Please write your E-ID on your check payment.
5. Allow access to parents or other parties by setting them up as authorized users. All you need is their e-mail address. This will allow them to access your bill, pay your bill, and set up a payment plan. An e-mail is automatically sent to the authorized user with sign-in details. The authorized user will create a new password once in the site.
6. The University offers a payment plan to help manage the cost of education. The cost of the plan is \$27 and is added to your installment payments. The plan automatically adjusts as payments or charges are added to your account. To enroll, simply log into the Ebill site at: <https://ebill.emich.edu>. Click on Payment Plan, at the bottom of the Ebill site, and follow the four simple steps to enroll in the plan. We hope you enjoy this added convenience and we welcome any questions you may have.
7. If you have any questions about the system, please send your e-mail to ebill@emich.edu.

EMU's optional installment payment plan is offered in the fall and winter semesters only and is applicable to tuition and room and board. A minimum of 50 percent must be paid initially and the remainder by the eighth week of the semester. An installment service fee of \$33 is assessed with the first installment billing and a late payment fee of \$33 per month is assessed on past-due balances.

If a student's account is past due for a current semester, enrollment, University housing and other University services (such as the release of transcripts) are subject to suspension until the account is brought into current status. Payment of assessments for a current semester does not relieve the student of obligation for payment of any balance from a prior semester.

Program Adjustment Fee

Beginning with the start of classes, a program adjustment fee of \$11 per drop transaction will be assessed for each student-initiated program adjustment.

For final adjustment deadlines and coordinate fee schedules, see the Class Schedule Books or on the Web at www.emich/controller/sbs.

No program adjustment fees will be assessed for changes required as a result of University actions.

Credit Adjustment for Total Withdrawal

A credit adjustment of 100 percent of tuition and fees for the fall and winter semesters, less the \$40 nonrefundable registration fee, will be made to those students who cancel their registration or withdraw from the University through the eighth class day. For the spring and summer sessions, a 100 percent credit adjustment, less the \$40 nonrefundable registration fee, will be made during the first four days of classes. Actual dates are printed in the class schedule book for each semester and session or on the Web.

A credit adjustment of 50 percent of tuition and fees for the fall and winter semesters, less the \$40 nonrefundable registration fee, will be made to those students who withdraw from the University (all classes) from the ninth through the 19th class day. For the spring and summer sessions, a 50 percent credit adjustment, less an administrative fee, will be made from the fifth through 10th class day of the session. Actual dates are printed in the class schedule for each semester and session.

A credit adjustment of 25 percent tuition and fees for the fall and winter semesters, less the \$40 nonrefundable registration fee, will be made to those students who withdraw from all classes between the 20th through the 38th class day. For the spring and summer sessions, a 25 percent credit adjustment, less an administrative fee, will be made from the 11th through 19th class day of the session. Actual dates are printed in the class schedule for each semester and session.

No credit adjustment will be made after the above stipulated dates.

Decrease in Academic Load

For the fall and winter semesters, 100-percent tuition credit, less a \$11 program adjustment fee, will be processed for those students who decrease their academic load through the eighth day of classes. For the spring and summer sessions, a 100 percent credit adjustment, less a \$11 program adjustment fee, will be made during the first four days of classes. Actual dates are printed in the class schedule for each semester and session.

No credit adjustments will be made after the above stipulated dates.

If a student or parent feels that individual circumstances warrant exceptions from the credit adjustment or University withdrawal adjustment policy:

1. Obtain a Tuition Appeal Application from the Student Business Services in 201 Pierce Hall. Complete and return the application along with an explanation of the extraordinary circumstances involved and supporting documentation of those circumstances. An approval or denial will be issued in writing by return mail. If the application is denied:
2. Appeal in writing to the Director of Student Business Services at the address above. Be sure to include any additional pertinent information with your written appeal.

Tuition and fee appeal applications must be submitted as early in the semester as possible. Applications received later than 15 calendar days after the close of the semester may be denied.

The General Fee

EMU has the responsibility to maintain certain services and facilities on campus for the comfort and convenience of students, and to maintain academic accreditation. Examples are: improvements to academic facilities, Snow Health Center, learning technology labs, athletic facilities, performing arts facilities and Student Government. These are funded through a general fee of \$21 per credit hour and assessed to all students. Not every supported service or facility is used by every student, but the overall good of the student body is served.

The Program Fee

Students in upper-level and graduate courses in certain areas of study will be charged program fees, a complete list of program fees can be found at www.emich/controller/sbs.

Student Union Fee

A student union fee of \$3.00 per credit hour is charged to all students to service the debt on the new student union building.

The Technology Fee

Each student will be charged a technology fee of \$10 per credit hour to update the technology of the University. This fee applies to any on campus, off campus and online classes.

Service Fees

Room and board fees are published by the Housing Office and are set by action of the Board of Regents.

A \$90 graduation fee is charged to each student who makes application for graduation. It covers the cost of mailing of diplomas and other specific graduation items. The fee is assessed once for each degree and is non-refundable.

Parking your motor vehicle in University parking lots requires the proper parking permit. To purchase your parking permit, you must first register your motor vehicle with the Public Safety Department, located on the ground floor of the parking structure. The application will contain information to indicate whether the permit will be mailed to you or whether you must pick it up in person.

Motor vehicle rates are as follows:

Commuter Permits

FA and WI	\$75
SP and SU	\$37.50

Resident Permits

Apartment housing FA and WI	\$150
Apartment SP and SU	\$25
Residence Hall FA and WI	\$150
Residence Hall SP and SU	\$75
Brown-Munson FA and WI	\$100
Brown-Munson SP and SU	\$50
Graduate Assistant FA and WI	\$40
Graduate Assistant SP and SU	\$20

All students meeting the requirements of the law are eligible to operate and maintain motor vehicles on campus. Motor vehicles are required to be operated within the provisions of the traffic, parking and pedestrian ordinances of the University and the city of Ypsilanti.

Further details are available in the parking and traffic regulations brochure available from campus police. Permit cost is subject to change.

Special Fees

Music fees are charged for private lessons according to the following schedule:

Music majors: \$60 per semester (maximum) for all instruction.
Other University students: \$60 per semester for one-hour lesson, \$30 per semester for half-hour lesson.

Students from public schools, the community and EMU staff and families: lessons are available through the EMU Community Music School. Fees vary depending on the length of the lesson and the instructor. Call the Department of Music and Dance for details.

Lessons are arranged through the Department of Music and Dance.

The applied music fee is assessed to each student's account at the close of the program adjustment period. This fee is not refundable after the first lesson.

Student Expenses

Estimated Academic Year Costs

(Residence Hall and Commuter Students)

The following budget represents typical expenses for a freshmen student, Michigan or Ohio resident, taking a total of 31 undergraduate credit hours during fall and winter semester, living in a University residence hall or off-campus apartment and attending the full academic year (fall and winter semesters).

Tuition and fees	\$6,638
Books and academic supplies	\$900
Residence hall room and board	\$6,610

Estimated additional costs of personal, transportation and miscellaneous expenses..... \$1,700

Personal expenses include: clothing allowance, medical/dental expenses, recreation, personal hygiene articles. Out-of-state students should allow for additional tuition and transportation costs.

Students can anticipate the following total costs: tuition and fees, books, room and board, personal and miscellaneous expenses and transportation for an eight-month academic year:

On-campus student	\$16,178
Off-campus student	\$16,178
Commuter student	\$12,422

The above budgets are based on financial aid average costs for 2006-2007.

Registration and Grading

Academic Year

The academic year is divided into fall and winter semesters of 15 weeks each, a spring session of either six or seven and one-half weeks and a summer session of either six or seven and one-half weeks, dependent on course selection. The new student may be admitted to the University for any semester or session. The University calendar is printed on page 4.

Evening courses and continuing education courses permit scheduling options within each semester or session. Two-week workshops and weekend seminars provide additional course credit opportunities.

Academic Course Load

Academic course load is the number of hours that a student carries in a semester or session. In the fall and winter semesters, the recommended full-time course load is 12-16 hours (15 with student teaching). In the seven and one-half week spring and summer sessions, it is six to eight hours, and in the six-week spring and summer sessions, it is six hours. Fall and winter students must register for a minimum of 12 credit hours to qualify as full time for University purposes, including financial aid. For the spring and summer semesters, the minimum full-time load is six credit hours for financial aid or other purposes.

Occasionally an increased academic load is found to be necessary or desirable. Before registering for more than the recommended hours, the student is asked to consult an adviser. The following two restrictions are placed on increased academic load:

1. First semester freshmen may not take more than the recommended full-time academic load without special permission from the Academic Advising Center, 301 Pierce.
2. Students on academic probation may not take more than the recommended full-time academic load without special permission from the Academic Advising Center.

Qualified continuing students taking over 19 credit hours should consult carefully with an academic adviser before taking an overload. The registration system will prevent registration for more than 19 credit hours (12 in spring or summer). Request assistance at the Records and Registration service counter to add classes in excess of 19 credits.

No person is allowed to attend class unless officially registered on a credit or audit basis with appropriate fees paid or is, as full-time staff or faculty, auditing under the staff benefits program. No credit will be given for work in courses not officially enrolled in by the mid-point of the term or session.

Auditing Courses

Courses may be audited subject to the approval of the head of the department offering the course. Audit applications may be obtained at, and returned to, the Office of Records and Registration, 303 Pierce Hall. No credit hours or grade points are awarded for a class audit. However, registration and payment of all fees is required for the class. Tuition and fees for auditing are the same as for the course in which credit is elected. Check the University calendar for deadlines to declare or remove audits.

Under provisions of the University staff benefits program, full-time staff, faculty and faculty spouses may audit classes by completing an approval process initiated at the Benefit Programs Office, 207 Bowen. These students do not register for the class and there is no transcript of their attendance.

Credit Hours/Class Levels/Course Numbers

Credits are determined by the units of work completed. One credit hour is the credit granted in a course that meets 50 minutes per week for 15 weeks. Credits earned on the term or quarter-hours basis at other institutions are converted to EMU credit hours by multiplying by two-thirds.

Class levels are determined by the academic hours completed as follows:

Class	Semester Hours
Freshman	0-24
Sophomore	25-55
Junior	56-84
Senior	85 or over

Administrative class levels that are not affected by academic hours completed:

Guest	GS
Nondegree	ND
Second bachelor's	SB
Postdegree teaching certificate	TC

Course numbers indicate the academic level of the course as follows:

Course Number	Level of Difficulty*
100-199	Introductory
200-299	Intermediate
300-499	Advanced

Note:

*Introductory courses are appropriate for students who have had no course work at the University level in the discipline in question. Intermediate courses presuppose that the students enrolled are familiar with and able to work with the content or methods, or both, of the discipline as presented in the introductory course. Advanced courses presume that students enrolled are familiar with and able to work with content, concepts and methodology of the discipline at a level appropriate to that of undergraduate majors in the discipline.

Courses numbered 500-599 are intended primarily for graduate students but are open in some cases to seniors. To be eligible, an undergraduate student must have successfully completed 85 hours or more of undergraduate credit, have a cumulative grade point average of 2.5 or better, and receive approval from the instructor and the Office of Graduate Studies and Research. Request forms are available at the Office of Records and Registration, 303 Pierce Hall. The maximum number of graduate hours that an advanced undergraduate can take is 15. Courses numbered in the 600s and 700s are exclusively for graduate students. Should an undergraduate student register in a 600 or higher class, they will be dropped without prior notice.

Prerequisites

Prerequisites designated in the catalog description of courses state requirements that must be completed with credit or are necessary to the understanding of the course selected. Any student not meeting prerequisite requirements or other restrictions, unless waived by instructor's permission, may be prevented from registering for or required to drop the course. Courses at the 200-, 300- and 400-levels that carry no prerequisites are taught at the academic levels described above.

Final Examinations

Final examinations are given by instructors to help evaluate a student's achievement in a course. Whether or not that evaluation shall include the final examination shall be determined by the instructor in line with departmental and University policy. If a final examination is not given, the scheduled examination period shall be used for other class activity.

If a final examination is given, students shall take the examination with their own class and at the hour indicated on the examination schedule. Failure

to take the examination at the scheduled time will result in a grade of E in the course, except when the requisite conditions for granting an I are present.

If the student finds that he/she has three examinations scheduled on one day, he/she may request the instructor of the class having the first examination of the day to arrange to take the examination at another time. If he/she finds that he/she has four examinations scheduled for one day, he/she may request the instructors of the first two examinations to make arrangements so that no more than two are scheduled in one day. He/she may appeal to the head of the department in which the course is offered if a satisfactory solution is not reached.

Students who for religious reasons find that they are not able to follow the examination schedule should make special arrangements with their instructors. If arrangements are not satisfactory, the student may appeal to the head of the department in which the course is offered.

Any deviation from the student's examination schedule, other than to limit the exams to two in one day or to observe religious mandates, must be approved in advance by both the instructor and the department head, and will be granted only in cases of extreme emergency.

Failure to take an examination at the scheduled time without prior arrangement will result in a grade of E in the course.

Grades

The grades used by the University with their corresponding values in points are as follows:

Grade	Significance	Grade points 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+		1.3
D	Below Average	1.0
D-		0.7
E	Unsatisfactory (denoting failure)	0.0
I	Incomplete	0.0
CR	Passing grade in credit/noncredit courses	0.0
NC	Failing grade in credit/noncredit courses	0.0
S	Passing grade in pass/fail elections	0.0
SC	Credit for certification in student teaching courses	0.0
PN	Passing grade in student teaching but not at level sufficient for certification	0.0
U	Failing grade in pass/fail	0.0
UN	Failing grade in student teaching elections	0.0
IP	In Progress	0.0
W	Withdrawal	0.0
2YR	E Forgiven — out of school two years	0.0
AUD	Audit	0.0
N	No grade submitted	0.0

Credits earned by student teaching, credit/noncredit classes or pass/fail options are not accorded grade points.

An E grade will be assigned for any course when the student stops attending a class without officially withdrawing from the course. Credit for courses in which either E or U grades have been received can be earned only by repeating the course at Eastern Michigan University. See repeat policy for exceptions.

A W grade is assigned only when an official withdrawal has been completed. (See Withdrawals on page 26.)

Pass/Fail

The pass/fail option is available to students who wish to experiment in an unfamiliar field without jeopardizing their grade point averages or for other reasons. Limitations to the option are:

1. It may be exercised only by juniors and seniors who are in good academic standing (at least 2.0 at EMU).

2. It may be applied only to free electives, that is, to courses which are outside the student's major, minor, curriculum, general education requirements or a prerequisite to a required course.
3. A maximum of six such courses may be applied toward graduation.
4. Students shall indicate their intention to take a course by filing an application with the Academic Advising Center, 301 Pierce, prior to the end of the program adjustment period. Approval or denial is available in two working days.
5. Students who elect a course on pass/fail may cancel the option and accept a letter grade up to the last day of class before the official University scheduled final examinations (the option for pass/fail may then be used for another course).
6. The instructor will not be notified of the student's election of this option. The regular letter grade reported by the instructor will be converted on grade reports and transcripts as follows:
 - a. Grades of A, B, C or D, including D-, will be converted to S, and shall count as credit toward graduation.
 - b. The grade of E will be converted to U, and shall not count toward graduation.
7. A course taken under this option shall not be used in any way in the computation of the student's grade point average. Thus, a pass/fail election shall not be approved for a course in which the student previously received a letter grade.

Students should be aware that, for some scholarships offered by the University, pass/fail courses are not considered part of the minimum required load for scholarship.

Students also should be fully aware of the possible implications of this option for acceptance into graduate schools and competition for financial aid. It has been ascertained that most graduate schools will accept students who have elected to take some courses on a pass/fail basis, but that if courses taken on this basis are sufficient in number on the transcript, the Graduate School Examinations may be utilized to determine the student's acceptability. Graduate schools, in general, do tend to favor those applicants who have good letter grades on their transcripts.

Credit/Noncredit Grading

A credit/noncredit option is utilized by departments in courses where the standard letter grades do not seem appropriate. Such courses will be designated as CR/NC in the class schedule book. All students taking such courses will receive either CR or NC in place of the letter grade. Neither CR nor NC will have any effect on the student's grade point average. Courses for which the CR is received will count towards graduation requirements, and there is no limit to the number of such courses that may be taken by the individual student. The CR/NC courses taken by students do not count in the number of pass-fail courses that can be elected.

Incomplete

An I (incomplete) grade is awarded only when a student has completed the majority of the work of a course and the student's work has been of acceptable quality (C or better) but the required amount of work has not been completed because of illness, necessary absence or other satisfactory reasons. It is never applied to poor work or to absence of class by the student. The student must inform the instructor of the reason for the requested incomplete, and the instructor may at his or her discretion agree to the request.

An I grade must be removed within one calendar year from the end of the semester or session in which that grade was given. The time for removal of an I may be extended upon written recommendation of the instructor and approval of the dean of the college. Such extension will be granted only under unusual circumstances.

The initiative for conversion of an I to a letter grade rests with the student. If not converted to a grade by the end of the one-year period, the I will remain as a permanent part of the student's academic record. Students and faculty are encouraged to establish a written agreement on the work and time needed to remove the incomplete.

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, 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 college.

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.). The only exception to this rule will be master's specialist and doctoral field-based research, internships and dissertation hours.

Repeats

Repeating courses for which the student is currently eligible can be elected, regardless of the grade received. The following conditions apply:

1. No course may be taken more than three times, except by permission of the head of the department in which the course is offered.
2. No student may repeat more than 10 different courses in the process of completing a baccalaureate degree, except by permission of the Academic Standards Committee. Contact is made through the Academic Advising Center.
3. All grades earned by a student will be retained on the student's permanent record. Repeats will be indicated.
4. Only the grade received the last time the course is taken will be used in compiling graduation credits and in determining the cumulative GPA.
5. A course failed at Eastern Michigan University may not be repeated at another accredited college or University to satisfy Eastern Michigan University requirements without prior written approval of the Registrar.

Grade Reports

Undergraduate students' academic records are kept on permanent file in the Office of Records and Registration, 303 Pierce Hall. Unless there are past-due financial obligations, students may get an official transcript of their complete records by requesting them in writing from the Cashier's Office.

Grade Point Average (GPA)

The scholarship index or grade point average is the total number of Eastern Michigan University grade points acquired, divided by the total number of Eastern Michigan University credit hours taken that carry grade points. When a course is repeated, only the last grade is used in the computation of the cumulative grade point average.

Transfer credit from another accredited institution is allowed for all transferable courses in which a grade of C or better is received, but is not included in computation of the GPA.

Calculation of GPA for returning former students, who have not attempted any college or University work for at least two calendar years, does not include courses in which a grade of less than D- was assigned. E grades will be changed to 2YR to reflect academic forgiveness.

Academic Probation and Dismissal

If, at the end of any term of enrollment, an undergraduate's cumulative GPA falls below 2.0, having previously been at or above 2.0 (or if new to the University), that student will be placed on academic probation (P1). The student will then have three terms of enrollment (spring/summer count as one) to raise the cumulative GPA to 2.0 or higher. At any time that the student's cumulative GPA reaches 2.0, the student will be restored to good academic standing (GO). Unless the cumulative GPA has been raised to 2.0

by the end of the third term of probation (P3), the student will be subject to academic dismissal.

Exceptions to this policy are as follows:

1. Any student whose first term of probation is the result of a semester of all Es must earn better than 0.00 (all Es) in the first term of probation or face dismissal immediately.
2. Students who have been readmitted (RA is equivalent to P1) after a dismissal will be placed on P2 after their first term, if their cumulative GPA remains below 2.0. They will have two terms to raise their cumulative GPA average to 2.0 or they will face a second and final dismissal.
3. All initial dismissal actions are subject to an appeal. Procedures and deadlines for such appeals will be included in notices of academic dismissal, sent to students at the conclusion of a term of enrollment. If an appeal is successful, the student will be reinstated (RN), which means the dismissal does not count. Students who are reinstated after an appeal will be given one more term to raise the GPA to 2.0 or they will be dismissed.

Students dismissed from the University for the first time may not attend Eastern Michigan University for one calendar year. They can then apply for readmission through the Academic Advising Center. Procedures and deadlines for readmission are available in the Academic Advising Center (301 Pierce Hall); contact the Assistant Director for Academic Actions. Students dismissed more than once (excluding reinstatement) are usually not eligible to return to the University. On occasion, when students have been away from the University for at least 10 years, a request may be submitted, through the Assistant Director for Academic Actions, to the Academic Standards Committee, who will make the final decision in such a case.

While remaining out of the University due to a dismissal, students may choose to attend another institution. Certain rules apply to course work taken elsewhere. Refer to the repeat policy in the catalog and consult with the Academic Advising Center on transfer of courses.

While on academic probation, a student may meet with the Assistant Director for Academic Actions or any adviser in the Academic Advising Center. In addition, students may seek help in developing successful strategies for academic performance through the Holman Learning Center, the Counseling Services Center and the Career Services Center.

Certain conditions are attached to an academic status of probation. Students on probation may not:

- Enroll in more than the established maximum load for regular full-time status in any term of enrollment. For fall and winter, this would be 16 credits (15 credits if student teaching); in spring and summer, eight credits.
- Enroll in education courses or courses that require admission to the College of Education.
- Receive credit for graduate-level courses (500-level).
- Take courses on Pass/Fail.

Drops/Withdrawals from Individual Classes

Drops/Withdrawals from Individual Classes

When withdrawal from a class, or from all classes, brings students' academic loads below the minimum number of hours necessary to qualify as full-time students for University housing, scholarship aid, student loans or any other benefits they enjoy for which academic enrollment was a prerequisite, the University may, at its option, take any or all of the following steps:

1. Deny permission to withdraw.
2. Cancel the benefits as of that date.
3. Declare the student ineligible for present and/or future benefits of a similar nature.
4. Deny permission to re-enroll in subsequent semesters.

Drops/withdrawals from class are permitted according to the following schedule (fall and winter):

Drop

- First eight days: All student-initiated drops during this period may be processed through the registration system. Such drops are not recorded on the student's permanent record.

Withdrawal

- Ninth day through tenth week: all student-initiated withdrawals are accepted automatically and recorded as a W (however, freshmen must check with the Academic Advising Center before withdrawing from courses). A withdrawal may be processed through the registration system or by submitting a withdrawal form to the Office of Records and Registration, 303 Pierce Hall.

Administrative Withdrawal

- After 10th week — until beginning of final exam period: students can withdraw only if they have specific extenuating circumstances, of recent occurrence, which clearly prevent them from completing the course in question. **Withdrawals are not automatic and documentation is required.** Make application for Administrative Withdrawal at the Academic Advising Center, 301 Pierce Hall. The decision will be communicated to the student and the instructor in question. Students must not stop attending class until they have received notification that the administrative withdrawal has been approved. If a student stops attending class and does not take the final exam without being withdrawn, University policy requires that the instructor assign a grade of E for the course.

Note:

These procedures and University withdrawal procedures also apply to spring and summer sessions, though the timeframe is more condensed. The exact withdrawal and deadline dates are printed in the current Class Schedule Book for the session concerned.

Withdrawals from the University

The following University procedure is subject to change in accordance with regulatory changes initiated by the United States Department of Education.

A credit adjustment of 100 percent of tuition and fees for the fall and winter semesters, less a registration fee, will be made to those students who completely cancel their registration or withdraw from the University through the eighth business day of the semester. For the spring and summer semesters, a 100-percent credit adjustment, will be made through the first four business days of the semester. Actual dates are printed in the Class Schedule Book for each semester.

A credit adjustment for total withdrawals after the eighth day of fall and winter semesters, or the fourth day of spring and summer semesters, will be made according to the following schedule:

Withdrawal by the following day of the semester

Credit Adjustment	Fall/Winter	Spring/Summer
50-percent	19th	10th
25-percent	38th	19th
0-percent	Last day Before finals	Last day before finals

Actual dates are printed in the class schedule book for each semester and session. No credit adjustments will be made after the above stipulated dates.

Retroactive Withdrawal

Retroactive withdrawal from the University may be requested by a student when unexpected circumstances arise after the completion of classes for a term. Normally, the request will be considered only for the preceding term.

The retroactive withdrawal policy is dependent on one or both of the following reasons:

1. *Administrative.* Through an administrative problem or error, the student received an E grade.
2. *Mental or physical stress.* Subsequent to awarding the term grades, the student claims that severe physical or psychological stress was present during the semester. Documentation must be presented by or on

behalf of the student, and a consultation may be required. In this case, the decision will affect all the classes the student was registered for during the term in question. In cases of severe mental or physical stress, it is usually assumed that students are so incapacitated they were not able to carry on with University responsibilities.

In either situation, the student must initiate the request at the Academic Advising Center, 301 Pierce Hall. Upon review of the documented evidence and possible further consultation, the director or designee will recommend action to the vice president for undergraduate studies or designee.

The approval of a retroactive withdrawal does not constitute approval of a tuition refund. Grades of W will be posted on the official academic record.

Student Conduct/Grievances

Grade grievance procedures also may be obtained from the academic department involved. Student employment grievance procedures may be obtained from the Career Services Center, third floor, King Hall.

Graduation

Graduation Requirements

To graduate from Eastern Michigan University, students must earn a bachelor of science degree, a bachelor of arts degree or one of the bachelor's degrees pertinent to their field of study. To accomplish this, students must fulfill general education requirements, a major of 30-36 hours and a minor of 20-24 hours or a self-contained program of 50-60 hours, and electives to equal the minimum total of 124 college-level credits.

The catalog requirements in effect at the time of the student's initial registration at a college or University or the requirements of a subsequent catalog, including those in effect at the time of the student's graduation, may be used to complete graduation requirements. In the event the student does not complete degree requirements within seven years of the date of his/her original registration, the student may be required to have his/her credits re-evaluated by the Office of Records and Registration in keeping with more recent catalog requirements. (See special time requirements in the description of the nursing program).

Basic Degree Curricula

Bachelor of Arts and Bachelor of Science

General education is the core of an undergraduate education. It is general in that it provides students with a comprehensive educational experience and prepares them for study within their major. General education teaches students to think critically and communicate effectively; it provides an introduction to the methodologies and practices of the academic disciplines; it promotes intellectual curiosity and a love of learning. General education is the heart of an EMU education and a source of institutional pride.

Area I: Effective Communication (2 courses/6 credits)

1. Required course in written composition
(Each major will also include a writing-intensive course that students must complete as part of their University requirements)
2. Required course in oral communication

Area II: Quantitative Reasoning..... (1 course/3 credits)

1. One course in quantitative reasoning

Area III: Perspectives on a Diverse World (2 courses/6 credits)

1. One course on global awareness
2. One course on U.S. diversity

Area IV: Knowledge of the Disciplines.....(8 courses/25 credits)

1. Two courses in arts with different subject codes
2. Two courses in humanities with different subject codes
3. Two courses in social sciences with different subject codes
4. Two courses in natural sciences with different subject codes (one must include a lab component)

Area V: Learning Beyond the Classroom

(Satisfy two of six areas through combination of experiences and/or courses)

1. Self and well-being
2. Community service, citizenship and leadership
3. Cultural and academic activities and events
4. Career and professional development
5. International and multicultural experience
6. Undergraduate research

Total credits for General Education40 credits

Minimum credits for academic major30 credits

Minimum credits for academic minor.....20 credits

Credits allowed for electives 34-43 credits
(may change with major/minor choice)

Total minimum credits fro graduation 124 credits

Graduation Audit

Students who have completed 95 credit hours or more should request a graduation audit by completing the required form at the Office of Records and Registration, 303 Pierce Hall, or completing the form usually printed in the class schedule book each semester.

The form requires the student to record their expected date of graduation, legal name, social security number and major(s) and minor(s) elected. In addition, a check list is provided for degree expected and teacher certification expected. Accurate information is essential.

Forms are filed in the Office of Records and Registration and processed according to expected graduation date. A graduation auditor checks the credit hours taken and records the credit hours still needed. One copy of this audit is mailed to the student and another copy is filed. Students should receive their audits a semester before they apply for graduation. A graduation audit does not take the place of regular, thorough advising.

Students may return the forms by mail or in person to Room 303 Pierce Hall. Time is required by the office staff for processing, and immediate responses to requests for information cannot be made at the time of the request.

Commencement

Commencement at Eastern Michigan University represents the culmination of a student's academic achievement. It is a time of celebration and reflection for students, families, faculty and staff. It brings together a diverse community to share in the joy of the accomplished goals of students.

The commencement ceremony at Eastern Michigan University serves a dual purpose: to mark a point of accomplishment, thus completing a chapter in the lives of students and those who support them, and to encourage continued pursuit of education and personal fulfillment.

Commencement eligibility includes students who have submitted an application for graduation by the posted deadline (beginning of the semester) for the indicated semester. Commencement ceremonies are held in April and December only (June and August graduates will participate in the December ceremony following their graduation date).

Academic distinction is awarded at graduation to students whose cumulative grade point average merits special recognition. A 3.9-4.0 grade point average is accorded summa cum laude; a 3.7-3.89, magna cum laude; and 3.5-3.69, cum laude on the diploma and permanent transcript record.

Academic Assessment

The Higher Learning Commission of the North Central Association of Colleges and Schools (NCA), EMU's regional accrediting body, has mandated that every college and University in the region have a plan for assessing both general education and each existing academic major for all students enrolling in the fall 1995 semester and later. EMU endorses this mandate and believes that the University will benefit by identifying the key skills and concepts that academic programs are developing and how well these skills and concepts are being developed in our students.

Because it is important to assess a representative sample of students, Eastern Michigan University considers involvement in this assessment mandatory for students asked to participate.

In some cases all students will be asked to participate, in other cases where it is impractical to assess all students, a representative sample will be selected. In either case, the above stated requirement will apply.

General education will be assessed through use of the Educational Testing Service's "Tasks in Critical Thinking." Between 200-250 students will take this test each year and students who participate in academic assessment activities will be helping Eastern Michigan University continually refine and improve its excellent academic programs and further enhance the reputation of all degrees awarded.

Educational Opportunities

Academic Service-Learning

Academic Service-Learning is a teaching methodology that utilizes community service as a means of helping students gain a deeper understanding of course objectives, acquire new knowledge and engage in civic activity.

The Office of Academic Service-Learning provides a resource center that features videos, journals, books, other publications and tapes related to academic service-learning. Also, research opportunities are available for faculty and students through the office.

To get involved in Academic Service-Learning, students should:

- contact past faculty fellows for resources on how to get involved, (to find out which courses faculty members teach that include an academic service-learning component, see Faculty Fellows);
- take a course that includes an academic service-learning component, (see list of courses); or
- contact our office:

Office of Academic Service-Learning
Campus Address: 219 Rackham
Phone: 734.487.6570
Web site: www.asl.emich.edu

Kathleen Stacey, director
E-mail: kathleen.stacey@emich.edu

Courses taught at EMU that may include an academic service-learning component are:

ACC546 Public and Nonprofit Nonsector Accounting
ATM255 Apparel Analysis
ATN210 Display Techniques
ATN437 Professional Seminar
BEDU395 Administering Workplace Systems and Technology
BEDU396 Information and Media Administration
BIOL403 Methods for Teaching Secondary Biology
CTAC224 Public Speaking
CTAC225 Listening Behavior
CTAC226 Nonverbal Communication
CTAC227 Interpersonal Communication
CTAC357 Interviewing as Communication
CTAC359 Small Group Communication
CTAC374 Intercultural Communication
CTAC379 Queer Communication
CTAC475 Research in Speech Communication
EDMT330 Institutional Application of Media and Technology
ENGL323 Writing for the Professional World
ENGL408 Writing for Writing Teachers
ENGL409 Teaching English in the Secondary Schools
FIN354 Investments
GEOG/GEOL: Many, all graduate level Documenting Historic Structures and Preservation
HIST123 The United States to 1877

HIST124 The United States, 1877 to the Present
HIST317 History and Geography of Spanish America
HIST481 Teaching Methods
HLED380 Psychosocial Concepts of Health Education
HRM430 Seminar in Hospitality Management
IDE420 Studio
JRN1314 Public Relations Writing
LITR260 African American Literature
MATH381 The Teaching of Mathematics K-6
MFG111 Engineering Materials
MGMT202 Business Communications
MGMT386 Organizational Behavior and Theory
MGMT460 Management Skills
MGMT492 Managing World Business Communication
PHIL221 Business Ethics
PHIL223 Medical Ethics
PHIL226/WGST226 Feminist Theory
PHY101 Physical Science in the Arts
SOCL352 Sociology of Education
SOFD328 Schools in a Multicultural Society
SPEI240 Introductory Clinical Experiences in Emotional Impairment
SPEI301 Emotionally Impaired Children and Adolescents
SPEI449 Current Topics in Emotional Impairment
SPGN251 Education of Exceptional Children
SMPI350 Introduction to Mental Retardation
SWRK403 Practice Issues w/ Women
SWRK420 Working With Aging People
TEDU350 Curriculum in Technology and Vocational Education

American Humanics

Address: 221 Rackham
Phone: 734.487.1612
Fax: 734.487.8514
E-mail: humanics@emich.edu
Web site: www.americanhumanics.emich.edu or
www.humanics.org

The American Humanics: The Nonprofit Scholars Program at EMU is a place for developing theoretical knowledge and practical skills. The program is part of the American Humanics Inc., a national alliance of colleges, universities and nonprofit organizations dedicated to educating, preparing and certifying professionals to strengthen and lead nonprofit organizations. To date, American Humanics Inc. is affiliated with more than 18 nonprofit agencies and numerous collaborating professional organizations and foundations, including American Red Cross, Girl Scouts, YMCA and Boys and Girls Clubs of America.

Undergraduate students earn an American Humanics certificate additionally to the bachelor degree. Students earn the certificate by:

1. Achieving 14 competencies;
2. Completing 300 hours of field-based experiences at a local nonprofit;
3. Participating in the American Humanics Student Association;
4. Attending one American Humanics Management Institute. The American Humanics certificate is provided by American Humanics, Inc. and it is recognized nationwide. The certificate gives students an edge on the job market.

The American Humanics competencies serve as a comprehensive, yet flexible framework to guide students toward certification, while providing nonprofit agencies with a pool of graduates highly qualified for employment. Examples of competencies include: marketing, management, program planning, board/committee development, human resource management and fundraising. There are two ways to achieve the competencies: by completing a portfolio or by enrolling in the interdisciplinary minor in nonprofit administration. The interdisciplinary minor in nonprofit administration is the structured way, while the portfolio is the more independent way to achieve the competencies. The interdisciplinary minor in nonprofit administration is administered by the Department of Political Science.

American Humanics certification provides significant benefits to student. It rewards students who are already volunteering with and working in the community organizations with national recognition, and introduces students who have limited or no community service experiences to the challenging life of nonprofit organizations. Most importantly, the American Humanics certification provides students with a job market advantage and networking opportunities. The nonprofit sector is the fastest growing sector of the economy, for example, in Michigan, every 11th job is in the non-profit sector. American Humanics graduates are highly sought on the job market to fill in positions such as program directors, fundraisers, human resource directors, volunteer coordinators and other positions. American Humanics graduate have an outstanding record of job placement — nearly 100 percent for those students who complete the requirements.

CSIE Program

Address: 219 Rackham Hall
Phone: 734.487.0281
E-mail: csie.info@emich.edu
Web site: www.emich.edu/csie

The Creative Scientific Inquiry Experience (CSIE) Program is funded through a grant from the National Science Foundation. The purpose is to increase the number of graduates with science, technology, engineering and mathematics (STEM) majors. The program offers unique integrated clusters of STEM courses called CSIEs — anchored by a one- or two-credit CSIE seminar.

Each CSIE features the following benefits:

- Deeper exploration of class content related to a common theme through academic service-learning* (AS-L) experiences which often include community-based research projects;
- Intensive academic support, mentoring and advising by CSIE faculty and program staff to help students plan their academic careers;
- Opportunity to develop mentoring relationships with professionals from local industries, organizations and agencies, through shadowing experiences, guest speakers, facility tours and the AS-L experiences;
- Free of subsidized text books and supplies;
- Opportunity to satisfy general education requirements† for learning beyond the classroom (LBC) through 15 hours of service and/or presenting research at the Undergraduate Symposium‡ or professional meetings or conferences.

CSIE clusters are published each term in the course schedule books. Students can enroll directly through normal registration procedures—no special permissions, restrictions or overrides. Only department defined skill and course prerequisites apply — no additional academic requirements are mandated for the program. Students do not have to have declared a STEM major to participate.

Learn more about the program, read examples of previous CSIE clusters, and view upcoming offerings by going to www.emich.edu/csie.

*See *The Office of Academic Service Learning for a definition and examples of AS-L experiences.*

†See *General Education to learn about the LBC requirements.*

‡See *Undergraduate Symposium to learn about undergraduate research and experiences.*

First Year Experience Programs

EMU offers practical, yet innovative programs for its first year students to enhance learning experiences in the classroom, increase academic performance, improve student connections to the campus and community and aid in student retention and persistence towards an undergraduate degree.

Freshman Interest Groups (FIGs)

FIGs are learning communities in which freshmen explore common interests, develop critical thinking skills and build lasting friendships. FIG students take up to three college-level courses with the same peer group. All courses satisfy general education, program or elective credit

towards graduation. FIG instructors are experienced in teaching, mentoring and developing the strengths of first year students.

Promoting Academic Success and Survival (PASS)

The PASS program is designed to challenge and support freshmen who fall just below regular admission criteria and addresses issues students face as they transition to college. The program is based on the assumption that students are willing to work hard to succeed and that effective academic programs and teaching methods can bring them to the standards expected of college students. Among the benefits of the PASS program are learning community scheduling, free academic workshops, development of study skills as well as academic monitoring, individualized instruction and advising assistance.

Institute for the Study of Children, Families and Communities

David L. Clifford Ph.D., director
Campus Address: 203 Boone Hall
Phone: 734.487.0372
Fax: 734.487.0284
E-mail: david.clifford@emich.edu
Web site: www.iscfc.emich.edu

The Institute for the Study of Children, Families and Communities is an interdisciplinary applied research unit. It organizes teams of faculty, staff and community partners to carry out 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 Wienczek, M.S., e-mail: peggy.wienczek@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.

The Center for Community Building and Civic Engagement (CCBCE), operationally extends EMU's mission into the greater community. Through projects such as the HUD Community Outreach Partnership Center and the U.S. Department of Justice capacity building grant, 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

Celebration of Student Writing

At the end of every fall and winter semester, hundreds of students from English 121 classes display their written work at the semi-annual Celebration of Student Writing. For the celebration, sponsored by the Department of English Language and Literature and the Office of Undergraduate Studies, students create products representing the research they do in their 121 classes. Students who display their work are joined at the celebration by EMU faculty and administrators, students from other EMU courses and visitors ranging from prospective EMU students to students in writing courses from other colleges. Attendees wander the room and talk with student authors about their celebration projects and their research work for the semester.

Diversity in the Curriculum

The Diversity in the Curriculum program promotes the development of a curriculum of inclusion within the colleges, departments and

programs of the Division of Academic Affairs at Eastern Michigan University. Our objective is to translate the growing scholarship on diversity and multiculturalism into educational practices that reflect the most constructive aspects of cultural pluralism. Eastern Michigan University is nationally recognized as an institution characterized by a high level of diversity in its student population. The purpose of diversity in the curriculum is to ensure that our faculty and staff become characterized by an equally high level of multicultural expertise, as reflected in our curricular offerings and co-curricular services.

ElderQuest

Address: 217 Rackham
Phone: 734.487.0227
E-mail: ElderQuest@emich.edu
Web site: www.emich.edu/elderquest

The ElderQuest program provides a welcoming environment for persons 60 years and older and offers the opportunity to fully participate in campus programs and activities. ElderQuest provides leadership in the identification of various pathways into the University community including building University awareness and support for programming and services targeted for the elder population. ElderQuest office staff assists the elder participant in designing an exciting and challenging plan that fits his or her needs. There are many ways that an ElderQuest participant may be involved in University life including: serving as a guest lecture, working part-time on campus, assisting with special campus events, and mentoring students.

Writing Across the Curriculum

Students at EMU develop the skills they need to write inside and beyond the University. They do this both through designated writing courses and through courses that are part of EMU's Writing Across the Curriculum program. In their undergraduate experience, students take courses taught by faculty who have participated in a summer institute in order to infuse more writing into their courses. Students benefit from these faculty members' dedication to the development of their critical thinking and communication skills.

University Library

Bruce T. Halle Library

Rachel J. Cheng, University librarian
Address: 955 West Circle Drive
Phone: 734.487.0020 ext. 2200
Fax: 734.484.1151
Web site: 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 reception 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 reception desk) and a computer store offering discounted computers and software to EMU staff and students. Located in the atrium, the information 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.

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

Lab locations:

Morell D. Boone Computing Commons
Address: G07 Bruce T. Halle Library
Phone: 734.487.2121

Multimedia Commons
Address: Bruce T. Halle Library, first floor
Phone: 734.487.2687

Computer Lab
Address: 2nd Floor Student Center Union
Phone: 734.487.1365

Owen Computing Lab
Address: 101 Owen Building
Phone: 734.487.2241

Pray-Harrod Computing Lab
Address: 327 Pray-Harrod
Phone: 734.487.3271

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 your specific college or department.

ICT Computer Help Desk

Help Desk location:

ICT Computer Help Desk
Address: 106 Halle Library
Phone: 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 a common 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 and check your grades. For complete information on setting up your account, please visit the my.emich web site at: <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
Address: EMU Student Center, Room 101a
Phone: 734.487.2400
Web site: www.emich.edu/computerstore

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 10Mbit/sec Ethernet network.

To sign up for ResNet, after you arrive on campus, 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/wireless>.

Student Affairs and Campus Life

Campus Services

Career Services Center

Address: 311 King Hall
Phone: 734.487.0400
Fax: 734.487.0940
Web site: <http://career.emich.edu>

Satellite Offices:

College of Business
Address: 210 Owen Building
Phone: 734.487.4099

College of Education
Address: 206 Porter
Phone: 734.487.7120, ext. 2540

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 self-assessment, 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.

Access Services Office

Address: EMU Student Center, 2nd Floor
Phone: 734.487.2470
TTY: 734.487.2470
Web site: www.emich.edu/access_services

Students with physical, learning or psychological disabilities, sensory impairments or 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.

Children's Institute

Address: Rackham Building
Phone: 734.487.2348
Fax: 734.487.0286
Web site: www.emich.edu/uhs/children.html

Hours: Monday–Friday, 7:30 a.m. to 5:30 p.m.

The EMU Children's Institute, accredited by the National Association for the Education of Young Children, 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 and 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.

Cooperative Education

The Program

Cooperative education (co-op) is a unique educational plan designed to enhance academic studies and assist students in attaining career goals. The Career Services Center and academic departments cooperate with business and industry as well as private and public agencies in developing work assignments that parallel the student's academic program. Co-op provides direct, hands-on experience while adding practical dimensions to the student's academic background. Students typically earn wages and academic credit for each co-op job assignment. (For Career Services Center locations see page 30).

Benefits to the Student

1. Increases employment opportunities upon graduation. Approximately 70 percent of co-op participants are offered permanent jobs by their employer upon graduation.
2. Earns college credit while being paid to work. Co-op students also earn wages significantly higher than most student employment opportunities.
3. Increases earning and promotional potential. Co-op students start between five and 10 percent above normal entry-level salaries after graduation.
4. Gains on-the-job training related to course of study. Co-op students typically perform professional level assignments.
5. Links classroom and work place. Co-op placements provide the opportunity to apply academic studies while bringing career goals into focus.

Application/Eligibility

Complete the application for co-op found in all CSC offices and also online at <http://career.emich.edu> (College of Business students should be sure

to pick up major-specific guidelines/information at 210 Owen Building). Most students must be at least of junior standing with 12-15 credit hours or prerequisites completed in major. The College of Business (COB) and the College of Health and Human Services (CHHS) will consider second-semester sophomores in selected majors. Students should discuss eligibility with their career development associate or faculty sponsor. Note that eligibility and prerequisites vary based on major/minor and that departmental approval is required in most cases.

Grade Point Average

A 2.5 cumulative GPA is required unless waived by faculty sponsor. Students on academic probation are not eligible to participate.

Academic Credit

Generally three credits are awarded for each placement, but may vary by major and department. Students within the College of Technology (COT) are required to complete at least one placement. Work experiences are graded on a credit/non-credit basis.

Internships

Students interested in an internship are encouraged to seek information from their departmental office regarding placement assistance and application materials. Requirements may vary by department and academic discipline. The Student Employment and Career Resources areas of Career Services (rooms 311 and 319 King Hall, respectively) provide a variety of listings and directories for student use. Students are encouraged to identify opportunities, seek departmental approval and apply directly.

Pre-Professional Internships:

The Career Services Center facilitates the Pre-Professional Internship (PPI) program which is available for freshman and sophomores in all academic majors at any class level. This program offers up to six elective credits for work experience that has allowed students to explore career options. For additional information go to <http://career.emich.edu> or pick up a PPI packet at any CSC location.

Counseling Services

Address: 313 Snow Health Center
Phone: 734.487.1118
Fax: 734.481.0050
Web site: www.emich.edu/uhs/counseling.html

Hours: Monday – Friday, 8 a.m. to 5 p.m.

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.

Health Education and Wellness Programs

Address: Snow Health Center, top floor
Phone: 734.487.2226
Fax: 734.481.0050
Web site: www.emich.edu/uhs/healthed.html

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 Intervention Program (VIP)
- Blood drives
- CPR/First Aid certification

Holman Learning Center

Peg Carter, director
Judy Mack, Learning Center specialist/ Tutor Coordinator
Art Hoover, project coordinator
Sally Hattig, Supplemental Instruction coordinator
Rebekah McDow, office supervisor

Address: Bruce T. Halle Library, Room G04
Phone: 734.487.2133
TTY: 734.487.2482
E-mail: learning.center@emich.edu
Web site: www.tlc.emich.edu

Holman Learning Center (TLC) provides students with a campus-wide network of learning assistance programs designed to develop independent learning skills necessary for academic success.

Tutor Programs

TLC provides the following tutoring assistance programs: 1) Individual tutors are available to undergraduate students who wish to work one-on-one with a peer tutor to improve their understanding of a particular course. Individual tutoring is nonremedial and free. 2) Supplemental Instruction (SI) assist students who are enrolled in a first-year large lecture course to develop effective study strategies. A SI leader will lead small discussions on note-taking, study strategies and test-taking and relate the skills to the specific large lecture course.

Student Academic Success

TLC focuses on the academic success of each student during their career at Eastern Michigan University. The office continues to create new and innovative programs for students. These programs focus on new students to the University and students referred to the office by other departments or faculty. These programs include the following: 1) First-Year Academic Support Program links students, faculty and parents to facilitate the student's transition into higher education and to maximize academic success. 2) Skill-building workshops expose students to information on test-taking strategies, time management, how to efficiently take notes in class and preparing for final exams. Workshops are presented in freshmen residence halls, the Student Center and Halle Library. 3) Peer support sessions offer students an opportunity to talk to a graduate student to get help navigating the University environment and charting a positive, goal-oriented plan for academic success.

Pre-College Programs

Pre-college programs also provide an avenue for promoting academic achievement and success. TLC coordinates the following pre-college programs: 1) Martin Luther King, Jr./Cesar Chavez/Rosa Parks (KCP) College Days programs brings eighth through 12th grade students to campus and exposes them to college life. The program builds self-esteem, motivation and introduces participants to a variety of career options. 2) The Wade McCree Scholarship program awards 20 general fund scholarships each fall to underrepresented students entering the ninth grade. 3) The Summer Incentive Program (SIP) offers high school seniors showing academic potential for academic success an opportunity to take three college courses, live on

campus and work in the campus office during the summer. Participants who successfully complete the summer program are admitted to EMU in the fall.

Retention Tracking

Retention research provides the University with the information required for strategic planning and creation of new and effective University-wide programs aimed at retention and student success. The programs and student populations TLC currently tracks are all first time in any college (FTIAC), freshmen interest groups (FIGs), and the Promote Academic Survival and Success (PASS) populations. Programming for these student populations is a collaborative effort involving both Enrollment Management and Academic Affairs.

The EMU Student Center

Address: EMU Student Center, Third floor
Phone: 734.487.1157
Fax: 734.487.0493
Web site: www.emich.edu/mckenny/newbuilding

The EMU Student Center is the interactive heart of student life at Eastern. The building's concave east side architecturally declares the Student Center's intent to "embrace" the campus and act as a unifying force in the daily life of Eastern. This unifying mission is further reinforced in the Student Center's mix of facilities, services and programs designed to create an environment to attract and serve students, faculty, staff and the local community. The Student Center helps build a powerful and positive, diverse and collegiate, academic community at EMU. The Student Center is immediately adjacent to the Halle Library on the south, the Recreation and Intramural building on the southeast, and is near the academic core of the campus. The east side of the Student Center is a three-story glass wall that overlooks University Park.

The EMU Student Center's first floor consists of the EMU Bookstore operated by Follett, fireplace lounge, state of-the-art 250-seat auditorium, food court with comfortable seating for 450, Wendy's, Subway, Panda Express, Taco Bell/KFC, Sbarro's, Freshens, desert bar, convenience store, TCF Bank, Eagle Card Office, computer store, ticket office and a game room. The second floor consists of the grand ballroom with banquet style seating for 650, pre-function fireplace lounge, University Art Gallery, Student Center Art Gallery, the Admissions Welcome Center, University Information Center, Service EMU, International Student Office, New Student Programs, Student Judicial Services, Access Services, 24/7 computer lab, Commuter Central, lounge and coffee shop. The third floor consists of meeting rooms including the Native American inspired Kiva Room, Event Planning Office, Student Center Administration and the Center for Student Involvement that includes student government, Greek organizations, student organizations, Campus Life, Diversity and Community Involvement Programs and VISION. For additional information about the EMU Student Center visit: www.emich.edu/mckenny/newbuilding.htm. The Campus Information Center on the second floor of the Student Center can provide more information on the Center's programs and services. Call the friendly staff at 734.487.1157.

Campus Life

Address: EMU Student Center, Third Floor
Phone: 734.487.3045
Fax: 734.480.1927
Web site: www.emich.edu/campuslife

The Department of 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 provides a diverse array of co-curricular programs and services, where students learn about themselves and others, develop skills and foster lifelong friendships. For more information on the services and programs offered through Campus Life, call 734.487.3045.

- **Arts, Intellectual, Cultural and Entertainment Programs** – Offering campus engagement and aesthetic literacy experiences through a variety of activities including excursions, lectures, performing arts, film, coffeehouse, acoustic and live band performances, union programs, arts and crafts, etc.
- **Greek Life and Student Organizations** – Providing programs, services, resources and advocacy for more than 250 student organizations, fraternities and sororities to function effectively and to contribute positively to the EMU community.
- **New Student and Transition Programs** – Offering programs, services and resources assisting new freshman and transfer students transition positively to EMU, including Fusion: New Student Orientation, First-Year Mentor Program, Real Beginnings Freshman Creative Arts Publication and First-Year Common Reading Experience.
- **Leadership Programs** – Providing students with opportunities to enhance their personal and professional skills through LeaderTrips, EMU LeaderShape Institute, Ambassadors, emerging leader programs, Impact, student volunteer boards and employment experiences.

Department of Diversity and Community Involvement

Diversity Programs
Address: EMU Student Center, Third Floor
Phone: 734.487.3118
Fax: 734.487.6910
Web site: www.emich.edu/campuslife/diversity

Volunteerism and Community Service
Address: EMU Student Center, Third Floor
Phone: 734.487.3045
Fax: 734.480.1927
Web site: www.emich.edu/campuslife/vision.htm

The Department of Diversity and Community Involvement offers numerous opportunities for engagement and learning beyond the classroom.

Diversity Programs — Diversity Programs strives to provide the EMU community with educationally purposeful diversity. Diversity Programs includes the Center for Multicultural Affairs, the LGBTRC (Lesbian, Gay, Bisexual, Transgender Resource Center) and the Women's Center. Through its three centers, Diversity Programs enriches the EMU community by: offering programs that recognize, support and celebrate diverse student populations; providing information, resources and referral services; promoting academic, personal, social and professional development of diverse student populations; and helping faculty and staff live and teach effectively in a diverse University setting. Consider Diversity Programs as the campus resource for diversity programming and training. Examples of our programming include Cultural Heritage Celebration Months (Latino/Hispanic, Native American, Black History and Asian/Pacific Islander), Out Week, Lavender Role Models and Mentors, Take Back the Night and the Vagina Monologues.

Volunteerism and Community Service — Volunteering provides opportunities for students to obtain community service and pre-student teaching hours, earn scholarships and expand their resumes. Volunteers Incorporating Service Into Our Neighborhoods (VISION) is the campus community service connection. VISION helps students learn about social issues and address community needs by getting involved in service projects and developing campus-community partnerships. Students are empowered to coordinate VISION programs, including: Alternative Breaks, America Reads, Best Buddies, GREEN, Habitat for Humanity, Jumpstart, Kid Connection, Students Against Hunger and Homelessness (SAHAH), Volunteers Involved in Civic Engagement (VOICE), College Kid for a Day, Community Plunge and many one-day volunteer events.

Office of International Students

Address: EMU Student Center, Second Floor
Phone: 734.487.3116
Web site: www.emich.edu/ois

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.

Ombudsman

Address: 112 Welch Hall
Phone: 734.487.0074
Fax: 734.487.7170
Web site: <http://emich.edu/ombuds>

The ombudsman 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.

Snow Health Center

Phone: 734.487.2226
Fax: 734.487.2342
Web site: 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 nonstudent rates.

Student Government

Governed by the President (elected each spring)

Address: EMU Student Center, Third Floor

Phone: 734.487.1470

Web site: www.opticuslabs.com/emu/

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 24 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 University-related 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.

University Student Identification Card

EagleOne Card Office

Address: EMU Student Center, First Floor

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 EagleOne Card Office web site for office hours and updated information.

Veteran Services Office

Steven Lewis, Assistant Director

303E Pierce Hall

Records and Registration

Phone: 734.487.3119

Fax: 734.487.6808

Web site: 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.

Campus Living

Housing

Address: Dining Commons ONE, lower level

Phone: 734.487.1300

Fax: 734.487.8513

E-mail: housing@emich.edu

Web site: www.emich.edu/housing/halls.php

Hours: Monday-Friday, 8 a.m. to 5 p.m.

Residence Halls

Eastern Michigan University's residence system provides housing for over 4,000 students, staff and faculty. Housing options include both traditional residence halls and apartments. Our 13 residence halls offer six room layouts to choose from. You 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.

According to Eastern Michigan University policy, all first year unmarried students shall be required to live in University residence halls, contingent on space availability. Sophomore students may be required to live on campus as well, space permitting. Please see "Policies Affecting You" in the Indices for the complete policy.

Academic and Personal Success

Studies show that students are more likely to succeed academically and personally if they live in a residence hall. Part of the reason is the variety of academic and student support programs offered. Our Residence Education Program promotes staff organized study skills workshops and provides a nightly study center that creates a quiet, spacious atmosphere for studying.

Residence hall staff also conduct a number of informative programs on such topics as financial aid, health, fitness and personal relationships as well as recreational programming designed to promote community development and enhance your residence life experience.

Make Your Room Special

You'll be amazed at what you can do with your residence hall room. We'll supply the basic furnishings: desk, chairs, bed, dressers and treatments, but you may want to bring your own loveseat, refrigerator, microwave, carpeting and favorite wall hangings. Part of the fun of living in a hall is making it feel like home.

Get Involved in Your Hall

What's a great way to make new friends and have fun? Get involved in residence hall programs. There are so many things to do throughout the academic year. Residence hall staff and hall government traditionally sponsor events such as Lil' Sibs Weekend and a number of activities during Homecoming. Often individual floors and halls will organize bowling parties, volleyball games, sport outings, movie nights and live entertainment.

Residents take an active role in planning and organizing events. You can learn great leadership and organizational skills by participating on a planning committee or by getting involved in hall government. The Residence Hall Association, the residence hall student governing board, gives you an opportunity to represent your hall or floor. So get involved! After all, it's your home away from home!

At Your Service

You can stop by your hall front desk to pick up your mail, make change or check out cleaning supplies, vacuums and recreational equipment.

Our 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. You 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. Apply online from our web site at www.emich.edu/housing/halls.php;
2. Read the contract carefully and thoroughly. The contract contains important information you need to know before reserving a room;
3. Select a meal plan; and
4. Select your residence hall program:

- First-Year Center (new incoming freshmen only)
- Honors Hall (new students and transfers must have a 3.0 GPA)
- Upperclass hall (sophomores and above only)
- Single Room halls (reserved for returning students only. New upperclass, transfer and graduate students may be eligible only if space is available.)
- Experience halls: Phelps/ Sellers, Walton/ Putnam, Best

5. Make a \$200 prepayment online or print the contract and mail to:

Cashier's Office
Address: 201 Pierce Hall
Eastern Michigan University
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, or
- upperclass or nontraditional 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 \$20 (U.S.) nonrefundable 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. The maximum number of individuals in a one-bedroom unit is two.

Contact:

Address: Dining Commons ONE, lower level
Phone: 734.487.0445
Web site: www.emich.edu/housing/apartments

Dining Services

Address: Dining Commons ONE, lower level
Phone: 734.487.0418
Fax: 734.487.8513
Web site: www.emich.edu/dining

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, Sbarro, Sunset Strips and Freshens (national franchises). Offers a one-time walk through 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
- *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
- *EMU Student Center*: Lobby Shop, KFC/Taco Bell, Freshens, Sbarro and Sweet Success

Two meal plans have been created especially for commuter, off-campus students, University apartment residents, faculty and staff:

- FlexBuy E-Dollars: debit account that can be used campus-wide
- Block Plan: can be used only at Dining Commons ONE

Satellite Operations*

- *Courtside*: located in the Rec/IM 734.483.7573
- *Flying Eagles*: located on the Northeast end of Pray-Harold, 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 & 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

- **Platinum Meal Plan**: 18 meals, three meals a day, at any time, Monday – Friday with two meals on Saturday and one meal on Sunday. \$75 E-Dollars per semester to be used at any EMU operated dining location (food only). Two guest passes per semester to be used at any EMU operated dining location. Price: \$1,753.
- **Gold Meal Plan**: 13 meals, any two meals each day, at any time Monday – Saturday, and one meal on Sunday. \$150 E-Dollars per semester to be used at any EMU operated dining location. Four guest meal passes per semester to be used at any EMU operated dining location. Price: \$1,603.
- **Silver Meal Plan**: eight meals at any time of the day Monday-Sunday. \$250 E-Dollars per semester to be used at any EMU operated dining location. Eight guest meal passes per semester. Price: 1,503.
- **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 EagleOne 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:

Office of Student Judicial Services
Address: 250 EMU Student Center, 2nd Floor
Phone: 734.487.2157
Fax: 734.487.4376
Web site: www.emich.edu/sjs

University Governance and Individuals' Rights

Board of Regents

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, Clarkston; Floyd Clack, Flint; Thomas W. Sidlik, Ann Arbor, vice chair; Roy E. Wilbanks, Ypsilanti; Ismael Ahmed, Dearborn; Gary D. Hawks, Okemos; Francine Parker, St. Clair Shores; and James F. Stapleton, Ann Arbor.

Policies on Nondiscrimination

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 University-administered 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.

Nondiscrimination of the Disabled and/or Challenged

Sharon Abraham, director
Diversity and Affirmative Action
Address: 11 Welch
Phone: 734.487.1166

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 ombudsman.

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, 487.1222 for all others), Human Resources (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 (including but not limited to the Dean's List) 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 University Communications Office 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 may ask the University to amend records that they believe are 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 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; date and place of birth; major fields 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, 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 with 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 form. Forms 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 Sept. 15 to the Library Copy Center or to University Publications. Completing the exclusion form 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, DC 20202-4605

Extended Programs

Associate Vice President for Extended Programs

Mary Sue Marz
102 Boone Hall
Phone: 734.487.0427
Fax: 734.487.2316
www.ep.emich.edu

Programs

Continuing Education
Distance Education
Academic Programs Abroad/World College
Centers for Corporate Training
Institute for the Study of Children,
Families and Communities

Mission Statement

Extended Programs dissolves traditional campus boundaries through collaborative programs that extend the education, service and applied research of Eastern Michigan University to benefit local, national and international communities and organizations. 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

Dan Gaymer, associate dean
Noncredit Programs and Operations

Campus Address: 100 Boone Hall
Phone: 734.487.0407 or 800.777.3521
E-mail: continuing.education@emich.edu
Web site: www.ce.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
Phone: 810.225.0361
E-mail: brighton@emich.edu

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

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

EMU–Jackson
2111 Emmons Road, 127 McDivitt Hall
Jackson Community College
Jackson, MI 49201
Phone: 517.787.7265
E-mail: jackson@emich.edu

EMU–Livonia
38777 W. Six Mile Road, Suite 400
Livonia, MI 48152
Phone: 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
Phone: 734.384.6090
E-mail: monroe@emich.edu

EMU–Traverse City
NMC University Center
2200 Dendrinis Drive, Suite 220-N
Traverse City, MI 49684
Phone: 877.368.8289
E-mail: traverse.city@emich.edu

Washtenaw County/Weekend University
Continuing Education
Eastern Michigan University
101 Boone Hall, Suite 200-P
Ypsilanti, MI 48197
Phone: 734.487.0407
E-mail: continuing.education@emich.edu

Distance Education

Phone: 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 self-paced 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 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 must attend a free required workshop.

One-Week Courses

EMU-Winter Break

Phone: 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

Phone: 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

Phone: 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 noncredit 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 noncredit 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

Academic Programs Abroad

George Klein, director
103 Boone Hall
Phone: 734.487.2424 or 800.777.3541
Fax: 734.487.4377
E-mail: programs.abroad@emich.edu
Web site: www.emich.edu/abroad

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
- Hospitality Management in London and Paris
- 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 Galápagos 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, Germany 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.
- 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. Information on EMU Programs Abroad can be found at: www.emich.edu/abroad.

World College

Campus Address: 103 Boone Hall
Phone: 734.487.2414
Fax: 734.487.4377
E-mail: world.college@emich.edu
Web site: www.emich.edu/worldcollege

The World College coordinates and facilitates the development of internationally 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
Ronald K. Kerrigan, director
2000 Huron River Drive, Suite 101
Phone: 800.932.8689
E-mail: rkerrigan@emich.edu
Web site: www.emuosha.org

Center for Quality

Barbara L. Hopkins, director
2000 Huron River Drive, Suite 101
Phone: 800.932.8689
E-mail: bhopkins@emich.edu
Web site: www.centerforquality.org

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 thousands of people in hundreds of companies in North America, Asia, Europe and South America.

They include:

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

General Education Program

The General Education Program

Education for Participation in the Global Community

General education is the core of an undergraduate education. It is general in that it provides students with a comprehensive educational experience and prepares them for study within their majors. General education teaches students to think critically and to communicate effectively; they provide an introduction to the methodologies and practices of the foundational academic disciplines; and promote intellectual curiosity and a love of learning.

The General Education Program, Education for Participation in the Global Community, is organized into five main categories:

Area 1: Effective Communication. Individuals need to be able to communicate effectively for their own advancement and for their engagement with the world. They need to be able to read, understand, and critique information. They need to communicate their expertise to others within their own culture and across cultures, and they need to understand different contexts for communication.

Area 2: Quantitative Reasoning. Quantitative Reasoning involves analyzing, critiquing, and evaluating quantitative information in order to make informed decisions. Quantitative reasoning skills are required in almost every major and professional program, as well as in personal and professional life.

Area 3: Perspectives on a Diverse World. Our personal and professional lives have been transformed by changes in a world that is increasingly interconnected. Knowledge of diversity and global issues is vast and complex. Courses in this category introduce students to issues and perspectives in these areas and also provide them with conceptual skills for future learning.

Area 4: Knowledge of the Disciplines. Knowledge of the liberal arts is still the core of General Education. General Education courses explicitly articulate the procedures, practices, methodologies, and fundamental assumptions of disciplines and interdisciplinary fields. In this category, students will take a sampling of courses in the Arts, Humanities, Natural Sciences, and Social Sciences, and they will learn the methodologies and practices associated with each of these disciplines.

Area 5: Learning Beyond the Classroom. This category provides opportunities for experiential learning. Students select from a wide range of experiences, including intellectual and artistic opportunities provided by the University, internships and practicums associated with majors and degree programs, and research opportunities for undergraduates.

General Education Program Requirements

Area 1: Effective Communication

To meet this requirement students must complete:

1. ENGL 121 Composition II: Research and Writing the Public Experience
2. CTAS 124 Fundamentals of Speech

Students should take ENGL 121 and CTAS 124 in their first year, and they should take these courses before completing 45 credit hours.

Each major also includes a Writing-Intensive course that students must complete as part of their University requirements. Students should consult with an adviser in their majors for further information.

Placement for ENGL 121. Placement into ENGL 121 is done through informed student choice. Other ways of determining the correct course placement includes consulting an EMU adviser or the First-Year Writing Director. Students can waive ENGL 121 if they have an English ACT score of 29 or higher, or a Verbal SAT score of 640 or higher.

Placement for ESLN 412. Any student whose first language is not English must demonstrate his or her level of English proficiency as a University admission requirement. The measure accepted for language proficiency is the TOEFL (Test of English for Speakers of Foreign Languages) or the MELAB (Michigan English Language Assessment Battery).

Placement for CTAS 124. Students with strong previous preparation in speech may seek approval for a waiver of this requirement from the Department of Communication and Theatre Arts. Such waivers are granted on an individual basis.

Transfer Requirements for Area 1 Effective Communication:

Transfer with MACRAO	Transfer without MACRAO
Satisfied through MACRAO	An English writing course equivalent to ENGL121 or higher
	Oral Communication course

Area 2: Quantitative Reasoning

To meet this requirement students must complete:

1. One General Education QR course based upon placement

Placement for Quantitative Reasoning:

ACT Score	SAT Score	EMU Course
Less than 19	Less than 520	MATH097/098 (or test) in preparation for MATH110
Between 19 and 22	Between 520 and 570	MATH110
Between 23-27	Between 580 and 660	Any course designated "QR"
28 or higher	670 or higher	No Quantitative Reasoning course required for General Education

Transfer Requirements for Area 2 Quantitative Reasoning:

Transfer with MACRAO	Transfer without MACRAO
Any course that is equivalent to MATH105, 109, 110, 118, 119, and 170	Any course that is equivalent to MATH105, 109, 110, 118, 119, and 170

Area 3: Perspective on a Diverse World

To meet this requirement students must complete:

1. One course focused on Global Awareness
See course schedule for specific course offerings
2. One course focused on U.S. Diversity
See course schedule for specific course offerings

Transfer Requirements for Area 3 Perspectives on a Diverse World:

Transfer with MACRAO	Transfer without MACRAO
Students must take only one course in Perspectives on a Diverse World. This course may be in either U.S. Diversity or Global Awareness.	If transferring 30 credits or more, students must take only one course in Perspectives on a Diverse World. This course may be in either U.S. Diversity or Global Awareness.
	If transferring fewer than 30 credits, students must take a course in both U.S. Diversity and Global Awareness.
Transfer courses that meet the spirit of the outcomes will be accepted	Transfer courses that meet the spirit of the outcomes will be accepted

Please note: All courses accepted for transfer credit toward general education requirements in areas 1-4 (Effective Communication, Quantitative Reasoning, Perspectives on Diversity, Knowledge of the Disciplines) must be a minimum of two credits. Area 5 (Learning Beyond the Classroom) equivalencies may be one credit hour courses.

For more information or answers to questions contact :

The General Education Office
Phone: 734.487.0439
Web site: www.emich.edu/gened

Area 4: Knowledge of the Disciplines

To meet this requirement students must complete:

1. Two courses in the Arts
See course schedule for specific course offerings
2. Two courses in the Humanities
See course schedule for specific course offerings
3. Two courses in the Natural Sciences
See course schedule for specific course offerings
4. Two courses in the Social Sciences
See course schedule for specific course offerings

Note: The two courses selected in each category must be in different disciplines. Also, students cannot take more than one course with the same prefix.

Transfer Requirements for Area 4 Knowledge of the Disciplines:

Transfer with MACRAO	Transfer without MACRAO
Satisfied through MACRAO	2 science courses
	2 social sciences courses
	2 arts courses
	2 humanities courses

Area 5: Learning Beyond the Classroom

To meet this requirement students must satisfy two of the six focus areas:

1. Self and Well-Being
2. Community Service, Citizenship, and Leadership
3. Cultural and Academic Activities and Events
4. Career and Professional Development
5. International and Multicultural Experiences
6. Undergraduate Research

Transfer Requirements for Area 5 Learning Beyond the Classroom:

Transfer with MACRAO	Transfer without MACRAO
Students will need one Learning Beyond the Classroom experience or course at EMU.	If transferring 30 credits or more, students will need one Learning Beyond the Classroom experience or course at EMU.
	If transferring fewer than 30 credits, students will need two Learning Beyond the Classroom experiences or courses (one course can be transferred).

Honors College

Director

Dr. James A. Knapp
Wise Hall Honors Suite
Phone: 734.487.0341
or 734.487.0345
Fax: 734.487.0793

E-mail: emuhonors@emich.edu
Web site: www.emich.edu/honors/

Mission Statement

The Honors College at Eastern Michigan University strives to provide the intimacy of a small, liberal arts education within the context of a large, comprehensive University. To this end, both educational and cultural experiences for EMU's intellectually talented and motivated students are provided through challenging Honors courses and extracurricular activities that encourage scholarly curiosity, leadership, civic engagement and diversity. The Honors College offers undergraduate students opportunities for a wide range of experiences that aid in the development of their appreciation for creativity, the arts, sciences, critical issues facing contemporary society and diversity among people and their cultures.

Admission

How to apply to the Honors College

Applying to the HC is a three-step process.

1. Complete the application form, which can be obtained from the Honors Office or downloaded from the HC web site.
2. Write an essay of 500 words describing your academic and personal accomplishments, as well as your academic, personal and career goals. In a concluding statement, express the nature and extent of your proposed commitment to the Honors College.
3. Fill in the first section of the recommendation forms and then give them to a teacher or counselor. The teacher/counselor should place the completed form in an envelope, sign across the seal and give it back to the applicant to return with the completed application. Applicants should submit two academic recommendations.

Applicants will be notified of acceptance or denial by letter. Denied applicants can re-apply after completing at least one semester (15 credit hours) at EMU and earning a minimum GPA of 3.3.

Graduation with Honors

I. University Honors

- A. Coursework: 24 credit hours required
 1. A minimum of 18 credit hours must be completed in General Education.
 2. A minimum of 3 credit hours must be completed in the major or minor.
 3. The remaining 3 credit hours may be taken in either General Education or the major/minor.
- B. Honors Experiences: 3 required
 1. One honors experience should be completed annually for three years, beginning in either the freshman or sophomore year.
 2. One honors experience must be multicultural.
 3. If a student is also pursuing departmental honors, one honors experience must be relevant to the field in which the student is earning departmental honors.

- C. Community Service: 24 hours required
 1. Approximately six hours should be completed each year (freshman, sophomore, junior and senior).

II. Departmental Honors

- A. Coursework: 12 credit hours required
 1. A minimum of 12 credit hours must be completed in the major or minor.
 2. Six non-general education credit hours earned pursuing University Honors can be counted toward this requirement.
- B. Honors Experiences: 2 required
 1. One honors experience must be relevant to the field in which the student is earning departmental honors.
 2. One honors experience should be completed annually during the junior and senior years.

C. Community Service: 24 hours required

D. Thesis

1. A senior thesis/project must be completed for academic credit in either the major or minor field of study.

III. Highest or Double Honors.

Here, the requirements for both University and departmental honors are fulfilled. This entails six to nine credit hours (including the senior thesis project) above and beyond University Honors (for 30 total honors credits), 48 hours (total) community service, and five honors experiences.

Honors Experiences

Honors experiences are acceptable with prior approval by an HC staff member. An honors experience is an event, experience or activity that will achieve one or more of the following goals:

1. Develop leadership skills among honors students.
2. Enrich the intellectual lives and minds of honors students.
3. Help create a sense of community among honors students.
4. Give honors students broad exposure to cultural diversity and enrichment.
5. Enhance the international experience of honors students.

Honors Thesis Project

A thesis or senior project is a scholarly work (completed according to the standards of a particular academic field) in which students explore a specific problem and present conclusions. By doing such advanced work, students gain in-depth knowledge about the scholarly process in their specialized field of study. A thesis project can take various forms: lengthy research paper, public performance, documented lab experiment, computer program, work of art, or even a two-page mathematical proof. Whatever form it takes, this should be a demanding exercise, and the result should demonstrate exceptional skill and understanding. Students who complete an honors thesis work closely with a faculty member to gain valuable experiences that are rare for most undergraduate students.

Honors Contracts

A contract is a written agreement between the student and professor that allows a student to earn honors credit in an upper-level course. There is a form for the contract which specifies what extra work and requirements must be fulfilled in order to enrich the course to earn honors credit. Although contracts are typically used in upper level courses required for the major or minor, they can also be used in *any* upper level class provided the student and professor agree on its terms. Contracts are typically not allowed for general education courses.

Community Service

All honors students must perform approximately six hours of community service annually for a total of 24 hours. The required form is downloadable on the HC web site or can be obtained from the HC office. All projects must be pre-approved by HC staff. Students in the Honors College who earn certification in the American Humanics program automatically fulfill all of their community service requirements for graduating with honors.

Honors Students "In Good Standing"

Honors students must maintain a minimum GPA of 3.3 (on a 4.0 scale) to stay in good standing. A student whose GPA falls below 3.0 is dropped from the Honors College (although students can subsequently re-apply if their GPA goes back up to 3.3). Students whose GPA drops below 3.3 but stays above 3.0 will be put on probationary status, and they have one semester to raise their GPA to 3.3 in order to be re-instated as honors students in good standing. Also, honors students must take at least one three-credit honors course every second semester to remain in good standing.

Honors students not in good standing are ineligible for early or priority registration, cannot apply for Honors Undergraduate Fellowships or Senior Thesis awards, and will not be recognized as "Graduating with Honors" at commencement or on their academic transcripts.

Honors College Benefits

- High quality faculty instruction in small classes

- Academic and career advising by honors faculty and staff
- Priority or early registration for classes
- Opportunity to take graduate level courses for honors credit
- Undergraduate research opportunities
- Extended library loans
- Good preparation for careers and graduate studies
- EMU Main Stage discounts
- Trips and social events
- Membership in honors organizations
- Recognition at Commencement
- Opportunities for community service
- Support for Study Abroad
- Honors housing:
 - Wise Community of Scholars Residence Hall (for first-year students)
 - The Village (for upper-level students)
- Assistance in applying for national scholarships (e.g., Rhodes, Truman, Goldwater)
- Competitive monetary awards, including:
 - Senior Thesis Awards
 - Honors Undergraduate Fellowships
 - Founder's Award for study abroad

Honors Student Association (HSA)

The Honors Student Association is an officially recognized campus organization which serves as the student voice for the Honors College. This group works closely with an HC faculty member and the HSA Executive Board to plan student programming, social events, group volunteer and fundraising projects, and speakers on topical issues. The Executive Board is comprised of the HSA student officers and provides an opportunity for Honors student leadership. A typical HSA schedule includes monthly meetings of both the membership and the Executive Board, as well as several student events.

Study Abroad

Honors students may choose the option of earning honors credit while studying in a foreign country. An Honors contract is used to earn credit, and no special project is required. This is a great opportunity to experience a different language and culture while earning Honors credit.

Student and Faculty Handbooks

The Student Handbook explains in detail honors students' expectations. It contains comprehensive sections on maintaining HC membership, earning honors credit, graduating with honors, other graduation requirements and awards/fellowships.

The Faculty Handbook is divided into two parts. The first contains general information about the Honors College, including admission and retention criteria, policies about earning honors credit for University coursework and requirements for graduating with Honors. The second part provides specific information about the most important ways in which the program impacts you as a faculty member, including sections on teaching honors courses, supervising contracts and undergraduate fellowships, and advising Honors students.

Both handbooks can be found on the HC web site, www.emich.edu/honors. All Honors students and faculty should read their respective handbooks carefully.

Pre-Professional Curriculums

Pre-Professional Programs

Pre-Professional Programs are sets of courses designed to prepare students for admission into professional schools in areas such as medicine, dentistry or law. They may also prepare students for transfer to other universities in areas such as architecture or engineering. Pre-Professional sequences are not degree-awarding programs. A student who completes a pre-professional sequence of courses will not earn a BS or BA in that area. A student who is interested in completing an undergraduate degree before attending a professional school should consult with an adviser to determine what major will best suit their future goals.

Pre-Architecture Program

This program is designed for students who wish to transfer to an architecture program at another University. Students are strongly advised to consult with the school to which they plan to transfer for specific requirements. Courses taken may apply to other majors at the University if the student chooses to remain on this campus to complete a bachelor's degree.

Department advisers in these areas maintain contact with universities that offer related four-year programs in order to maximize the value of the transfer program of study at the University to other universities. Students planning to transfer to four-year programs should not complete EMU's general education requirements.

Required Courses..... 57 hours

- ART123 Drawing I (3 hrs)
- ART131 Three-Dimensional Design (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- CTAS121 Fundamentals of Speech (2 hrs)
- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- HIST123 The United States to 1877 (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- PHIL130 Introduction to Logic (or approved alternative) (3 hrs)
- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PLSC112/113 American Government (3 hrs)
- Two literature courses (6 hrs)

Recommended Course (course may not transfer).....2 hours

- CNST125 Introduction to Construction (2 hrs)

Note:

All minors must have at least six hours of course work at the 300-level or above.

Pre-Dentistry

Most students select either a chemistry major and biology minor or a biology major and chemistry minor as preparation for admission to dental school. The exact requirements for a particular dental school can be found in the publication *Admission Requirements of U.S. and Canadian Dental Schools*, available in the office of the pre-dentistry adviser.

The majority of pre-dental students complete four years of undergraduate work, earning a B.S. degree. Since admission to dental school is very competitive, it is recommended that alternative career plans be a part of every pre-dental student's program.

Students seeking admission to dental school take the Dental Aptitude Test, usually late in the junior year or early in the senior year. Application is generally made between August and December for the class beginning the following fall. Virtually all dental schools require the use of a central agency, the American Association of Dental Schools Application Service, when applying for admission.

Science courses required for admission into most dental schools are listed below. Careful scheduling will allow the student to complete these courses in three years.

Required Courses

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

Note:

†Introductory courses in histology or human physiology, biochemistry and microbiology are recommended. One year of English composition/ literature. One course in sociology, psychology or anthropology.

Dental Hygiene and Dental Assisting

Eastern Michigan University offers no degrees or certificates in these areas. Two-year certificates and four-year degree programs are available at the University of Michigan, Ferris State University and the University of Detroit-Mercy. Two-year programs also are available at numerous community colleges.

Students interested in these programs should plan on transferring after completing their freshman year at EMU. Liberal arts preparation in English composition, speech, chemistry (CHEM117/118 Fundamentals of Chemistry with lab), psychology, sociology and political science, plus electives in social science, natural science and humanities, generally will be transferable. More specific descriptions of requirements should be obtained by writing to the schools in question since requirements vary from school to school.

Pre-Engineering Program

This program is a two-year program designed for the student who wishes to transfer to an engineering program at another University. Students are strongly advised to consult with the engineering school to which they plan to transfer for specific requirements. Courses taken may apply to other majors at the University if the student chooses to remain on campus to complete a bachelor's degree.

Pre-engineering advisers in the department maintain contact with universities that offer related four-year programs in order to maximize the value of the transfer program of study at the University to other universities. Currently we offer a formal program with the University of Detroit-Mercy and transfer agreements with the University of Michigan in Ann Arbor and the University of Michigan in Dearborn.

Required Mathematics Courses..... 18 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH325 Differential Equations (3 hrs)

Required Physics Courses 18 hours

- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PHY229 Strength and Elasticity of Materials (4 hrs)
- PHY230 Engineering Dynamics (4 hrs)

Other Required Courses..... 16 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)
- COSC246 Programming in C++ (3 hrs)
- ECON201 Principles of Macroeconomics (3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- One literature course (3 hrs)

†Electives.....	15 hours
BIOL110 Introductory Biology (5 hrs)	
CHEM123/124 General Chemistry II/Laboratory (3/1 hrs)	
CHEM341 Fundamentals of Material Science (3 hrs)	
CHEM371/372/373 Organic Chemistry I/II/Laboratory (3/3/2 hrs)	
CTAS121 Fundamentals of Speech (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
ENGL225 Intermediate English Composition (3 hrs)	
PHY360 Heat and Thermodynamics (4 hrs)	
PHY370 Introduction to Modern Physics (3 hrs)	
PHY456 Electronics and Scientists (4 hrs)	
PHY471 Atomic and Nuclear Physics (3 hrs)	
PHY485 Fluid Dynamics (3 hrs)	
More than three credit hours of computer science courses	
More than three credit hours of literature courses	
More than three credit hours of humanities courses	
More than three credit hours of social science courses	
Other courses with consultation	

Note:

†All electives should be chosen in consultation with a pre-engineering adviser. Every engineering program has different requirements. Different fields in engineering (mechanical, electrical, nuclear, chemical, civil, aerospace, environmental, etc) requires different courses. Meeting with a pre-engineering adviser to develop a plan of study will maximize the value of your transfer program.

Pre-Professional Program in Pre-Law

Most law schools require a bachelor's degree and evidence of potential for law school as measured by grade point average and the results of the Law School Admission Test (LSAT). In addition, most law school admission officers emphasize the importance of a broad academic background and the development of analytical and communication skills. The Department of Political Science provides counseling for prelaw students, LSAT registration, and application materials and catalogs from many law schools throughout the country.

Because law schools typically do not require specific courses for admission or identify any particular major or curriculum as preferable, it is necessary for prelaw students to plan their own academic programs. Given the increasing competitiveness of admission to law school, it is important that great care be exercised in selecting a program of study appropriate to a legal career and in maintaining a high level of academic performance. It is also prudent to choose a program that will provide a suitable alternative career.

The majors most commonly selected by prelaw students are political science, economics, history and sociology. Other frequent choices include English language and literature, communications, psychology, philosophy and business administration. Although less numerous, students with majors in mathematics, the natural sciences, foreign languages, music, and art also enter law school to enhance their career potential.

Whatever major and minor combination is chosen, attention also should be given to the selection of appropriate elective courses. Generally, any challenging course that will facilitate mastery of the use of language, develop critical understanding of human values and institutions, or contribute to the capacity for independent and creative thinking is likely to be useful. Among specific courses that are often recommended by prelaw advisers are advanced English composition, persuasive speech, logic and accounting. Mathematics and science courses are frequently cited as helpful in developing needed analytical skills.

Prelaw students who desire to gain greater insight into the law and legal procedures, and law school approaches to legal studies, may choose from a broad range of courses offered by the Departments of Political Science, Sociology, Economics, History and Philosophy, and Marketing. The major and minor in public law and government, offered by the Department of Political Science, provides a firm foundation on which to build a career in law.

Pre-Medicine (Allopathic and Osteopathic) , Pre-Veterinary, and Pre-Chiropractic, Pre-Optometry and Pre-Podiatry

Students can complete course requirements at EMU for admission to medicine, optometry, podiatry, veterinary and chiropractic programs. For information on these programs, see the advising coordinator for premedical programs.

While medical schools do not prescribe a premedical curriculum, they expect a thorough understanding of modern concepts in biology, chemistry and physics, and all value mathematical competence, with some specifying a course sequence in mathematics. Most pre-medical students, therefore, select a major in one of these areas, although this is not mandatory. Students should earn the bachelor's degree prior to admission to medical school.

An important admission requirement for most medical schools, the Medical College Admission Test (MCAT), is given in April and August in various centers throughout the nation. This test should be taken after prerequisites in biology, chemistry and physics are completed, typically during the junior year.

Each allopathic and osteopathic medical school establishes its own admission requirements. The course requirements are similar but differ enough so that students should consult the catalogs of the schools in which they are interested. The latest edition of *Medical School Admission Requirements*, available at the reference desk of Halle library and in the premedicine adviser's office, should be consulted. The introductory chapters of this book should be read by every prospective medical student.

If students electing the premedicine sequence are not achieving at least a 2.75 GPA (overall and in their major), their chances of acceptance by a medical school are minimal, and they should plan their programs so that other professional or vocational goals are possible.

The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

B.S. Pre-Chiropractic—Logan College of Chiropractic

See page 11 for further information

Students planning to apply for admission to a medical school should plan their schedule to include the following general requirements:

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- BIOL301 Genetics (3 hrs)
- BIOL305 Cell and Molecular Biology
- BIOL306 Cell and Molecular Biology and Genetics Laboratory
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- CHEM451 Biochemistry I (3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- Elective in English language or literature (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- Sociology and psychology courses (8 hrs)

Because of the nature of the premedical program, if the student is a biology or chemistry major it is almost mandatory to follow the first year as patterned below.

First Year — Pre-Medicine

First Semester	13-19 hours
BIOL110 Introductory Biology I (5 hrs)	

CHEM121/122 General Chemistry I with lab (4 hrs)
‡Mathematics (2-4 hrs)
General education (2-6 hrs)

†Second Semester..... 14-20 hours
BIOL120 Introductory Biology II (5 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
‡Mathematics (2-4 hrs)
General education (3-7 hrs)

Note:

†Prior to registering for the second semester, the student should see the premedical coordinator.

‡Students with one to two years of less than high-level algebra take MATH105 College Algebra. Students with only one year of algebra take MATH104 Intermediate Algebra, followed by MATH105 College Algebra. Students without trigonometry take MATH107 Plane Trigonometry. Although students may need to take MATH104 Intermediate Algebra, MATH105 College Algebra or MATH107 Plane Trigonometry these courses do not satisfy general education requirements. Students must still complete a mathematics course from the list of approved mathematics courses; biology majors will satisfy both general education and biology major requirements by taking MATH120 Calculus I.

Pre-Mortuary Science

The pre-mortuary science program requires two academic years. Before entering the professional mortuary school, the student must complete at least 60 hours of college work that includes the following science and mathematics courses:

Recommended Courses

BIOL105 Introductory Biology for Non-majors (4 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
MATH104 Intermediate Algebra (3 hrs)
Another mathematics elective may be substituted.
PSY101 General Psychology (3 hrs)

The Board of Examiners in Mortuary Science recommends the following courses for elective hours. They include behavioral sciences, business, counseling, first aid and public speaking.

Recommended Elective Courses

ACC240 Principles of Financial Accounting (3 hrs)
COUN450 An Introduction: Counseling Concepts and Skills (3 hrs)
CTAC225 Listening Behavior (3 hrs)
CTAC226 Nonverbal Communication (3 hrs)
CTAC227 Interpersonal Communication (3 hrs)
CTAS121/124 Fundamentals of Speech (2/3 hrs)
ECON200 The American Economy (3 hrs)
ECON201 Principles of Macroeconomics (3 hrs)
HLED210 Standard American Red Cross First Aid (2 hrs)
LAW293 Legal Environment of Business (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
MKTG363 Retailing (3 hrs)
PSY225 Psychology of Religion (3 hrs)
PSY323 Psychology of Human Aging (3 hrs)
SOCL105 Introductory Sociology (3 hrs)
SOCL311 Social Gerontology (3 hrs)

Pre-Pharmacy

Two years of college work (60 transferable hours, including the courses listed below) are required for admission to a professional school of pharmacy. Some schools have additional required or recommended courses.

Programs in pharmacy require two to four additional years of study after acceptance into the program. Clinical experience is required for some,

especially doctoral programs. These are minimal requirements. To be competitive for some pharmacy programs, students may need to complete a bachelors program. It is strongly advised that students contact pharmacy schools directly to determine whether additional coursework and PCAT exam scores are required.

Recommended Courses

CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
CHEM371 Organic Chemistry I (3 hrs)
CHEM372 Organic Chemistry II (3 hrs)
CHEM373 Organic Chemistry Laboratory (2 hrs)
ENGL121 Composition II: Researching the Public Experience (3 hrs)
MATH120 Calculus I (4 hrs)
MICR328 Microbiology (3 hrs)
One biology course with a lab (Some schools require additional courses.)
Two social science courses
Two humanities courses (two foreign language courses may be substituted.)

Interdisciplinary Programs

Cross Disciplinary Studies

The Cross-Disciplinary Studies program is designed with the primary goal of helping certain types of students complete their degrees in a timely manner. At the same time, the immediate focus will be on those targeted by the governor's "Return to Learn" campaign, i.e., working adults who wish to complete post-secondary degrees and credentials.

The basic configuration of the Cross-Disciplinary Studies program consists of a number of areas of concentration from which students are required to complete three. Each area requires 21 credits, with a minimum of 15 being at the 300- or 400-level. Concentrations consist of courses grouped around a particular theme with courses chosen from within a given department or from different departments. No concentration, however, would be allowed to duplicate an already-existing minor.

Students interested in the Cross-Disciplinary Studies program should contact Academic Advising for more information.

General Education..... 40 hours

Communication 21 hours

- CTAC352 Communication in Negotiation (3 hrs)
- CTAC354 Organizational Communication (3 hrs)
- CTAC359 Small Group Communication (3 hrs)
- CTAC372 Assertive Communication (3 hrs)
- CTAC374 Intercultural Communication (3 hrs)
- CTAC376 Communication and Conflict Resolution (3 hrs)
- CTAC485 Communication Theory (3 hrs)

Leadership..... 21 hours

- MGMT386 Organizational Theory and Behavior (3 hrs)
- MGMT450 Leadership Theories and Practice (3 hrs)
- MGMT460 Management Skills (3 hrs)
- MGMT480 Management Responsibilities and Ethics (3 hrs)
- MGMT486 Organizational Change and Team building (3 hrs)
- MGMT496 Current Issues in Human Resource Management (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)

Human Relations 21 hours

- PSY309 Social Psychology (3 hrs)
- PSY356 Motivation and Emotion (3 hrs)
- PSY451 Dynamics of personality (3 hrs)
- SOC307 Sociology of the Workplace (3 hrs)
- SOC336 Social and Cultural Change (3 hrs)
- SOC344 Sociology of Gender (3 hrs)
- SOC462 Complex Organizations (3 hrs)

University Electives..... 21 hours

Program Total 124 hours

A minimum of 15 credit hours from each concentration must be at the 300-level or above.

College of Arts and Sciences

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Hartmut Hoft
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College of Arts and Sciences General
Education Advising Office
720 Pray-Harrold
Phone: 734.487.7523

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 and Gender 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. The College seeks to foster an appreciation for diverse multicultural, ethnic and gender-related perspectives.

The College of Arts and Sciences

The College of Arts and Sciences educates students and fosters scholarly and creative activity in the fine and performing arts, the humanities and the social and natural sciences, both applied and theoretical. The liberal arts education in the College embodies the five principles embraced by the general education program: effective communication, quantitative reasoning, knowledge of the disciplines, perspectives on a diverse world and learning beyond the classroom.

Faculty research is integrated into the teaching of the College's many undergraduate majors and graduate degree programs enhancing student skills in both pure and applied inquiry and preparing students for professional careers and informed citizenship. Scholarly and creative activity of the faculty provides the foundation for the College's education of students at all levels as well as the foundation for service to the engagement with surrounding communities. The College's commitment to active, collaborative, interdisciplinary, applied and innovative teachings hinges upon ongoing creativity, curiosity and inquiry in all fields of faculty expertise.

The College seeks to ensure success for all its members, to prepare them for service in local, national and global communities and organizations and to instill knowledge of and respect for human diversity in all its many manifestations. The College seeks to serve and enrich the local community and the region through its vibrant artistic programs, applied research services and civic and K-12 partnerships.

Baccalaureates

Most students in the college pursue one of the two basic undergraduate degrees, bachelor of science (B.S.) or bachelor of arts (B.A.). Both degrees require completion of University general education requirements, a major and a minor, the two-hour physical education and health graduation requirement and a minimum total of 124 hours. The bachelor of arts degree includes in that total one year of college credit in a foreign language. The bachelor of science degree provides greatest flexibility in selection of the major and minor and in the use of electives.

Additionally, the following specialized degrees are offered: bachelor of fine arts (B.F.A.), bachelor of art education (B.A.E.), bachelor of music education (B.M.E.), bachelor of music-performance (B.Mu.) and bachelor of music therapy (B.M.T.). These specialized degrees are described more fully within the individual departments.

Several professional certificate and preprofessional programs are also available within the college. These programs, described more fully within individual department listings, include: registered music therapy (RMT); international diplomas in business French and German; certified actuarial science (CAS); pre-dental hygiene; pre-dentistry; pre-law; pre-medicine and pre-osteopathic medicine; pre-mortuary science; pre-pharmacy; and prereligious careers. Two other preparatory programs are shared with the College of Technology: prearchitecture and preengineering.

Department of African American Studies

Address: 620 Pray-Harold
 Phone: 734.487.3460
 E-mail: rwoods1@emich.edu
 Web site: www.emich.edu/public/daas/index.html

See page 249 for course descriptions.

The Department of African American Studies offers an undergraduate major and a minor. The undergraduate program examines the Black experience in the Americas, the Caribbean and Africa from historical and contemporary perspectives. Students study the African American experience in particular as an entity in its own right and as a microcosm of dynamics operating in the domestic and global settings. The program addresses the multidimensionality of the Black experience, including its historical, political, policy, legal, economic, sociological, psychological, religious and artistic dimensions. AAS majors should Note that one year of a foreign language is required for the B.A. degree and the B.S. degree does not have a foreign language requirement.

African American Studies Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Required Courses 9 hours

AAS101 Introduction to African American Studies (3 hrs)

AAS201 Foundations of Knowledge in African American Studies (3 hrs)

AAS401 African American Studies Research Seminar (3 hrs)

Restricted Elective Courses 21 hours

Twenty-one hours from the following:

AAS102 Introduction to African Civilization (3 hrs)

AAS221 African American Social Movements (3 hrs)

AAS231 Urbanization and the African American Community (3 hrs)

AAS232 Politics in the African American Experience (3 hrs)

AAS233 Public Policy and African Americans (3 hrs)

AAS243/PLSC243/WGST243 Black Women: Politics and Racism (3 hrs)

AAS301 Writing for African American Studies (3 hrs)

AAS311 The African Diaspora (3 hrs)

AAS312 African Civilization (3 hrs)

AAS313 Contemporary Africa: The Struggle and Prospects for Development (3 hrs)

AAS351 The Social Context of African American Health (3 hrs)

AAS361 The African American Family (3 hrs)

AAS362/PLSC362/WGST362 Black Women: Religion and Sexism (3 hrs)

AAS370 Films of the African American Experience (3 hrs)

AAS402 African American Studies Internship Seminar (3 hrs)

AAS441 Law in the African American Experience (3 hrs)

CTAR151 African American Theatre: An Introduction (3 hrs)

HIST315 History of Black Americans (3 hrs)

LITR160 African American Literature (3 hrs)

Elective Course3 hours

One course from the following:

AAS232 Politics in the African American Experience (3 hrs)

AAS233 Public Policy and African Americans (3 hrs)
 AAS312 African Civilization (3 hrs)
 AAS313 Contemporary Africa: the Struggle and Prospects for Development (3 hrs)
 ANTH236 Peoples and Cultures of Africa (3 hrs)
 CTAR151 African American Theatre: An Introduction (3 hrs)
 CTAR251 African American Theatre: Creative Problems (3 hrs)
 ECON321 Minority Workers in the Labor Market (3 hrs)
 GEOG322 Geography of Africa (3 hrs)
 GEOG332 Urban Geography (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)
 HIST347 Sub-Saharan Africa to 1885 (3 hrs)
 HIST348 20th-Century Africa (3 hrs)
 HIST365 The Old South (3 hrs)
 PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
 PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
 SOCL214/ANTH214 U.S. Racial and Cultural Minorities (3 hrs)
 SOCL306 The Urban Community (3 hrs)
 Any course offered by the African American Studies Department, including independent studies and special topics

Minor Requirements20 hours
 University Elective Courses31 hours
 Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

African American Studies Minor

Required Courses 9 hours
 AAS101 Introduction to African American Studies (3 hrs)
 AAS201 Foundations of Knowledge in African American Studies (3 hrs)
 AAS401 African American Studies Research Seminar (3 hrs)

Restricted Elective Courses 9 hours
Nine hours from the following:

AAS102 Introduction to African Civilization (3 hrs)
 AAS221 African American Social Movements (3 hrs)
 AAS231 Urbanization and the African American Community (3 hrs)
 AAS232 Politics in the African American Experience (3 hrs)
 AAS233 Public Policy and African Americans (3 hrs)
 AAS243/PLSC243/WGST243 Black Women: Politics and Racism (3 hrs)
 AAS301 Writing for African American Studies (3 hrs)
 AAS311 The African Diaspora (3 hrs)
 AAS312 African Civilization (3 hrs)
 AAS313 Contemporary Africa: The Struggle and Prospects for Development (3 hrs)
 AAS351 The Social Context of African American Health (3 hrs)
 AAS361 The African American Family (3 hrs)
 AAS362/PLSC362/WGST362 Black Women: Religion and Sexism (3 hrs)
 AAS370 Films of the African American Experience (3 hrs)
 AAS402 African American Studies Internship Seminar (3 hrs)
 AAS441 Law in the African American Experience (3 hrs)
 HIST315 History of Black Americans (3 hrs)
 LITR160 African American Literature (3 hrs)

Elective Course 3 hours
One course from the following:
 AAS232 Politics in the African American Experience (3 hrs)
 AAS233 Public Policy and African Americans (3 hrs)
 AAS312 African Civilization (3 hrs)

AAS313 Contemporary Africa: the Struggle and Prospects for Development (3 hrs)
 ANTH236 Peoples and Cultures of Africa (3 hrs)
 CTAR151 African American Theatre: An Introduction (3 hrs)
 CTAR251 African American Theatre: Creative Problems (3 hrs)
 ECON321 Minority Workers in the Labor Market (3 hrs)
 GEOG332 Urban Geography (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)
 HIST347 Sub-Saharan Africa to 1885 (3 hrs)
 HIST348 20th-Century Africa (3 hrs)
 HIST365 The Old South (3 hrs)
 PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
 PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
 SOCL214/ANTH214 U.S. Racial and Cultural Minorities (3 hrs)
 SOCL306 The Urban Community (3 hrs)
 Any course offered by the African American Studies Department, including independent studies and special topics

Minor Total21 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Department of Art

Address: 114 Ford Hall
 Phone: 734.487.1268
 E-mail: tvenner@online.emich.edu
 Web site: www.emich.edu/art

See page 252 for course descriptions.

The Department of Art administers programs leading to the bachelor of fine arts degree, curricula for teachers of art, an art major and minor and a major and minor in art history.

Advanced placement is available to students having up to six hours of advanced placement credit as elective art credits. Students contemplating the application of advanced placement credits toward an art degree should contact the department for complete information.

Bachelor of Fine Arts

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....54-60 hours
 Required Courses27 hours

ART107 Art History Survey I (3 hrs)
 ART108 Art History Survey II (3 hrs)
 ART122 Two-Dimensional Design (3 hrs)
 ART123 Drawing I (3 hrs)
 ART124 Drawing II (3 hrs)
 ART131 Three-Dimensional Design (3 hrs)
 ART210 Life Drawing (3 hrs)
 ART215 History of 19th-Century Art (3 hrs)
 ART216 History of 20th-Century Art (3 hrs)

Area of Concentration 12-18 hours

Select a sequence of four courses in one of the following areas:

ceramics	(ART CER)
drawing	(ART DRAW)
†graphic design	(ART GRDS)
jewelry	(ART JEWL)
painting	(ART PNTG)
photography	(ART PHOT)
printmaking	(ART PRNT)
sculpture	(ART SCUL)
textiles	(ART TEXT)
watercolor/painting	(ART WTCL)

Elective Courses 15 hours

Select from studio arts courses in consultation with an adviser.

Minor Requirements 0 hours

No minor is required.

University Electives Courses 24-30 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†The graphic design concentration requires 18 hours and 15 hours of art electives. Students seeking the BFA with a graphic design concentration must complete 60 hours in the major.

Art Major

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 30 hours

Required Courses 18 hours

ART107 Art History Survey I (3 hrs)
ART108 Art History Survey II (3 hrs)
ART122 Two-Dimensional Design (3 hrs)
ART123 Drawing I (3 hrs)
ART124 Drawing II (3 hrs)
ART131 Three-Dimensional Design (3 hrs)

Elective Courses 12 hours

Twelve hours from art studio and/or art history courses selected in consultation with an art adviser. Nine hours must be at the 300-level or above.

Minor Requirements 20 hours

University Elective Courses 34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Art History Major

This 30-hour major prepares students for graduate study, for gallery or museum work, or, with the addition of science and studio courses, for a career in conservation.

Art history majors should note that one year of college credit in a foreign language is required for the B.A. degree in art history. Most graduate programs in art history require reading proficiency in at least two foreign languages. Teacher certification in art is not obtainable using this major.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 30 hours

Required Courses 18 hours

ART107 Art History Survey I (3 hrs)
ART108 Art History Survey II (3 hrs)
ART122 Two-Dimensional Design (3 hrs)
ART215 History of 19th-Century Art (3 hrs)
ART216 History of 20th-Century Art (3 hrs)
ART428 Seminar in 20th-Century Art (3 hrs)

Elective Courses 9 hours

Pre-Renaissance Art

One course from the following:

ART340 History of Classical Art (3 hrs)
ART426 Medieval Art History (3 hrs)

Renaissance/Baroque Art

One course from the following:

ART341 History of Renaissance Art (3 hrs)
ART427 Baroque Art (3 hrs)

Nonwestern or Women's Art

One course from the following:

ART421 History of Asian Art (3 hrs)
ART422 Art of East Asia (3 hrs)
ART425 Arts of Africa (3 hrs)
ART430 Mesoamerican Art (3 hrs)
ART436 Women in Art (3 hrs)

Art History Elective 3 hours

One course from the following:

†ART151 Reason and Revolution (3 hrs)
ART335 American Painting and Sculpture Prior to World War II (3 hrs)
ART429 History of American Architecture (3 hrs)
ART440 Art Since 1945 (3 hrs)
ART497/498/499 Independent Study (1/2/3 hrs)
Any upper-level art history course not taken to fulfill another requirement

Minor Requirements 20 hours

University Elective Courses 34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Students may contract with art history faculty to include lower-numbered art courses for elective credit, with additional work.

Bachelor of Art Education in Visual Arts Education

K-12 Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in art, certification code LQ. The Michigan Test for Teacher Certification (MTTC) covering this field is #95, "Visual Arts Education."

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours

PLSC112/113 American Government (3 hrs)

Major Requirements.....48 hours

Required Courses21 hours

- ART123 Drawing I (3 hrs)
- ART124 Drawing II (3 hrs)
- ART122 Two-Dimensional Design (3 hrs)
- ART131 Three-Dimensional Design (3 hrs)
- ART210 Life Drawing (3 hrs)

One course from the following:

- ART109 Survey of Non-Western Art (3 hrs)
- ART421 History of Asian Art (3 hrs)
- ART422 Art of East Asia (3 hrs)
- ART425 Arts of Africa (3 hrs)
- ART430 Mesoamerican Art (3 hrs)
- Any other available non-Western art history course

One course from the following:

- ART107 Art History Survey I (3 hrs)
- ART108 Art History Survey II (3 hrs)
- ART215 History of 19th-Century Art (3 hrs)
- ART216 History of 20th-Century Art (3 hrs)

Restricted Elective Courses18 hours

Eighteen hours from the following, at least six from 3-dimensional media:

- 3-Dimensional Media
 - ART235 Introduction to Textiles (3 hrs)
 - ART307 Ceramics (3 hrs)
 - ART310 Sculpture (3 hrs)
 - ART320 Jewelry (3 hrs)
- 2-Dimensional Media
 - ART201 Introduction to Graphic Design I (3 hrs)
 - ART304 Beginning Photographic Imagery (3 hrs)
 - ART305 Printmaking (3 hrs)
 - ART313 Painting (3 hrs)
 - ART314 Watercolor I (3 hrs)
 - ART330 Computer Imaging (3 hrs)
 - ART432 Drawing III (3 hrs)

Area of Concentration 9 hours

Select a sequence of three advanced 300-level or above courses from one of the following concentrations after its matching introductory course in the above Restricted Elective Courses is completed:

- | | |
|---------------------|-------------|
| ceramics | (ARTT CER) |
| drawing | (ARTT DRAW) |
| graphic design | (ARTT GRDS) |
| jewelry | (ARTT JEWL) |
| painting | (ARTT PNTG) |
| photography | (ARTT PHOT) |
| printmaking | (ARTT PRNT) |
| sculpture | (ARTT SCUL) |
| textiles | (ARTT TEXT) |
| watercolor/painting | (ARTT WTCL) |

Minor Requirements0 hours

No minor is required.

Professional Studies42 hours

Pre-Admission phase: The Learner and the Community10 hours

- ART317 Teaching of Art (3 hrs)
- EDPS322 Human Development and Learning (4 hrs)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

- Phase I: Curriculum, Assessment and the Social Context.....10 hours
 - CURR305 Curriculum and Methods: Secondary (3 hrs)
 - EDPS340 Introduction to Assessment and Evaluation (3 hrs)
 - FETE301 Field Experience II: Secondary (1 hr)
 - SOFD328 Schools in a Multicultural Society (3 hrs)
- Phase II: Content Methods,

Literacy and Technology10 hours

- ART331 Technology in Art Education (3 hrs)
- ART416 Art Methods and Materials (3 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC496 Student Teaching (6 hrs)
- EDUC497 Student Teaching (6 hrs)

Program Total 134 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Art Minor

Required Courses 9 hours

- ART122 Two-Dimensional Design (3 hrs)
- ART123 Drawing I (3 hrs)
- One art history course (3 hrs)
- (ART108 Art History Survey II suggested)

Elective Courses12 hours

Twelve hours in studio art or art history, of which at least six hours must be at the 300-level or above.

Minor Total21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Art History Minor

Students with an art major who elect the art history minor must replace ART107 Art History Survey I, ART108 Art History Survey II, ART215 History of 19th-Century Art, ART216 History of 20th-Century Art on the major with studio courses.

Required Courses15 hours

- ART107 Art History Survey I (3 hrs)
- ART108 Art History Survey II (3 hrs)
- ART215 History of 19th-Century Art (3 hrs)
- ART216 History of 20th-Century Art (3 hrs)
- ART428 Seminar in 20th-Century Art (3 hrs)

Restricted Elective Courses 6 hours

Six hours from art history courses selected in consultation with art history minor advising coordinator.

Minor Total21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Biology

Address: 316 Mark Jefferson
Phone: 734.487.4242
Web site: www.emich.edu/biology/index.html

See pages 260, 263, 292, 331 and 373 for course descriptions.

The biology major provides a broad foundation in biology, with the opportunity to specialize in a number of different areas within biology: ecology and organismal biology, microbiology, physiology and cell and molecular biology. It also provides the necessary background for students pursuing careers in medicine, veterinary medicine, dentistry and other health-related fields. Students planning to teach biology at the secondary level should also select the biology major. The biology major prepares students for job opportunities in private industry, government agencies, academic institutions and in diverse fields ranging from ecology and environmental biology to biomedical research and biotechnology. The biology major also prepares students for graduate work in various specializations in biology at major research universities across the country.

The department prides itself on a student-oriented approach supported by intense faculty dedication to integration of high-quality instruction in the classroom with sophisticated field and laboratory research beyond the classroom. In this way, the department provides a comprehensive experience augmenting coursework with practical scientific experiences for students. Opportunities in biology are supported by an array of facilities within the department, including: a Terrestrial and Aquatic Ecology Research Facility (with both greenhouse and laboratory facilities), a Molecular Biology Research Facility (with a DNA sequencing laboratory), zoological museums, an herbarium, an electron microscopy suite and a variety of other specialized research laboratories. Opportunities for field research are available at the EMU Loesell Field Laboratory near campus and the Parsons Property in Traverse City. Field-oriented courses are offered at the EMU Kresge Environmental Education Center at Lapeer, the Conservation Training School at Higgins Lake and the Institute for Tropical Marine Ecology in Dominica. Students interested in off-campus programs are encouraged to visit the Biology Department web site.

The department currently sponsors the Xi Delta chapter of Beta Beta Beta, the national biological honorary society. All biology majors and minors are encouraged to participate in its activities. Pre-professional students are encouraged to join the Organization for Pre-Professional Students and pre-veterinary students are encouraged to join the Pre-Veterinary Medicine Association. Internships or co-op positions are available with outside employers. In addition, faculty members have periodic openings for undergraduate research assistants through externally funded grants. The department offers approximately \$50,000 in scholarships and fellowships to students each year. Scholarships for scholastic excellence are provided by the Mary Goddard, Minnie Neary, Bert Johnson, Grace Wertenberger and Fred and Ford Bryan endowments for study in biology. The Meta Hellwig endowment provides major support of fellowships each year to foster student research collaboration with faculty, as well as special study scholarships for off-campus learning experiences. In addition, the department has had the pleasure of offering for more than 15 years an annual, non-endowed scholarship from the Federated Garden Club of Michigan. Further information and application criteria for these awards can be obtained from the departmental office.

Departmental advising procedures are posted on the web site and opposite the biology office (316 Mark Jefferson), or this office may be contacted for additional information.

Special Advising Requirements

Prospective biology majors/minors should declare their majors/minors as soon as possible after their admission to the University. This can also be done online on the Academic Advising page.

To graduate with a major in biology, the student must meet with a biology faculty adviser. This meeting must take place as early as possible but

no later than the end of the first year. All transfer students must contact a biology faculty adviser during their first semester at EMU.

Students intending to apply to a doctoral medical program (M.D., D.O., D.V.M., D.P.M., D.C., O.D., D.D.S.) are strongly urged to attend the annual pre-professional orientation and to meet with the pre-professional adviser during their first semester. Students may declare their interests by including one of the pre-professional program codes along with their major and minor.

Biology majors and minors who elect teacher certification must be admitted into the College of Education.

Required courses at the 300-level or higher that were taken 10 or more years ago must be retaken or the student must demonstrate current knowledge in that field. Current knowledge can be demonstrated by: 1) passing a department or national biology exam, 2) publishing a peer reviewed paper in the field, or 3) teaching a college level course in that field.

Biology Major

Majors should start with BIOL110 followed by BIOL120 in their freshman year. Chemistry courses should also be started in the freshman year in order to fulfill the requirements for the 300- and 400- level biology courses. The core biology lectures and laboratories should be completed no later than the end of the junior year. Since BIOL 301 is a pre- or corequisite for both BIOL305 and BIOL315, it should be completed as soon as possible to avoid any delay in graduation. The 15 semester hours of electives allow a student to specialize or to take a variety of biology courses. Although some electives can be taken as early as the sophomore year, most will be taken in the junior and senior years. Students are strongly advised to elect the remaining core course as one of the electives.

General Education Requirements..... 40 hrs
See page 46 for further information regarding General Education requirements.

Major Requirements..... 63-65 hours

Biology.....36 hours

Required Foundation Courses13 hours

BIOL110 Introductory Biology I (5 hrs)

BIOL120 Introductory Biology II (5 hrs)

BIOL301 Genetics (3 hrs)

Biology Core Courses.....6 hours

Two courses from the following:

BIOL305 Cell and Molecular Biology (3 hrs)

BIOL310 Ecology (3 hrs)

BIOL315 Evolution (3 hrs)

Biology Core Labs2 hours

One course from the following:

BIOL306 Cell and Molecular Biology
and Genetics Lab (2 hrs)

BIOL311 Laboratory in Ecology (2 hrs)

Restricted Electives.....15 hours

Choose an additional 15 semester hours at the 300- and 400-level in biology, botany, microbiology and zoology. At least one course must be at the 400-level. All courses must have a minimum prerequisite of BIOL120. BIOL403 may not be counted toward a biology major.

Chemistry 16-17 hours

CHEM121/122 General Chemistry I (3/1 hrs)

CHEM123/124 General Chemistry II (3/1 hrs)

Select either option I or option II:

Option I:

CHEM371 Organic Chemistry I (3 hrs)

CHEM372 Organic Chemistry II (3 hrs)

CHEM373 Organic Chemistry Laboratory (2 hrs)

Option 2:

†CHEM270 Survey of Organic Chemistry (4 hrs)

CHEM271 Organic Chemistry Laboratory (1 hr)

One course from the following:
CHEM351 Foundations of Biochemistry (4 hrs)
CHEM451 Biochemistry I (3 hrs)

Physics 8 hours
PHY221 Mechanics, Sound and Heat (4 hrs)
PHY222 Electricity and Light (4 hrs)

Math..... 3-4 hours
One course from the following:
MATH120 Calculus I (4 hrs)
MATH170 Elementary Statistics (3 hrs)

Minor Requirements 20 hours

University Elective Courses 0-1 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Students who plan to pursue graduate work in biology or who are in a pre-professional program should select Option II: CHEM371/372/373 Organic Chemistry I-II with lab.

Biology Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in biology, certification code DA and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The Michigan Test for Teacher Certification (MTTC) covering this field is #17, "Biology."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 57-59 hours

Required Foundation Courses 28 hours
BIOL110 Introductory Biology I (5 hrs)
BIOL120 Introductory Biology II (5 hrs)
BIOL301 Genetics (3 hrs)
BIOL305 Cell and Molecular Biology (3 hrs)
BIOL310 Ecology (3 hrs)
BIOL315 Evolution (3 hrs)
†BIOL406 Nature of Science (1 hr)
ZOOL326 Human Physiology (3 hrs)
One course from the following:
BIOL306 Cell-Molecular Biology and Genetics Lab (2 hrs)
BIOL311 Laboratory in Ecology (2 hrs)

Elective Courses 2 hours
Two hours at the 300-level or above in biology selected in consultation with a biology adviser. The courses must have a minimum prerequisite of BIOL120 and BIOL403 Methods for Teaching Secondary Biology may NOT be counted toward a biology major.

Chemistry 16-17 hours
CHEM121/122 General Chemistry I (3/1 hrs)
CHEM123/124 General Chemistry II (3/1 hrs)
Select either option I or option II:
Option I:
CHEM371 Organic Chemistry I (3 hrs)
CHEM372 Organic Chemistry II (3 hrs)
CHEM373 Organic Chemistry Laboratory (2 hrs)

Option 2:

CHEM270 Survey of Organic Chemistry (4 hrs)
CHEM271 Organic Chemistry Laboratory (1 hr)
One course from the following:
CHEM351 Foundations of Biochemistry (4 hrs)
CHEM451 Biochemistry I (3 hrs)

Physics 8 hours
PHY221 Mechanics, Sound and Heat (4 hrs)
PHY222 Electricity and Light (4 hrs)

Math..... 3-4 hours
One course from the following:
MATH120 Calculus I (4 hrs)
MATH170 Elementary Statistics (3 hrs)

Professional Studies 39 hours
Pre-Admission Phase: The Learner and the Community 8 hours
EDPS322 Human Development and Learning (4 hrs)
FETE201 Field Experience I (1 hr)
SPGN251 Education of Students with Exceptionalities (3 hrs)
The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context 10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)
EDPS340 Introduction to Assessment and Evaluation (3 hrs)
FETE302 Field Experience II: Secondary (1 hr)
SOFD328 Schools in a Multicultural Society (3 hrs)
Phase II: Content Methods, Literacy and Technology 9 hours
BIOL403 Methods for Teaching Secondary Biology (3 hrs)
EDMT330 Instructional Applications of Media and Technology (2 hrs)
FETE402 Field Experience III: Secondary (1 hr)
RDNG311 Teaching Reading in the Secondary School (3 hrs)
Phase III: Capstone Experience 12 hours
EDUC492 Student Teaching (12 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs. A chemistry minor only requires eight additional credits.

University Elective Courses 0 hours

Program Total 156-162 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†PHY406 or ESSC406 may be substituted for BIOL406

Biology Minor

Minors should start with BIOL110 Introductory Biology I followed by BIOL120 Introductory Biology II in their freshman or sophomore year. Minors without high school biology should take BIOL105 Introductory Biology for Non-majors before taking BIOL110. (Although BIOL105 will not count toward the biology minor, credit earned in this course will count toward the 124 hours required for graduation.)

Students need to take CHEM121/122 General Chemistry I with lab (4 hrs) and CHEM123/124 General Chemistry II with lab (4 hrs) to satisfy the prerequisites for BIOL305.

Required Courses	13 hours
BIOL110 Introductory Biology I (5 hrs)	
BIOL120 Introductory Biology II (5 hrs)	
BIOL301 Genetics (3 hrs)	
Restricted Elective Courses	3 hours
<i>One course from the following:</i>	
BIOL305 Cell and Molecular Biology (3 hrs)	
BIOL310 Ecology (3 hrs)	
BIOL315 Evolution (3 hrs)	
Elective Courses	6 hours
<i>Six hours at the 300- or 400-level in biology, botany, microbiology and zoology selected in consultation with a biology adviser. All elective courses must have a minimum prerequisite of BIOL120. BIOL403 Methods for Teaching Secondary Biology may NOT be counted toward a biology minor. Students are strongly advised to select other restricted electives to fulfill this requirement. No more than six hours of BIOL/BOTN/MICR/ZOOL387 Cooperative Education and BIOL/BOTN/MICR/ZOOL497-499 Special Topics can be counted toward the minor.</i>	
Minor Total	22 hours

ESSC320 Oceanography (3 hrs)
ESSC324 Weather (3 hrs)
ESSC327 Soil Science (3 hrs)
ESSC424 Climatology (3 hrs)
ESSC448 Hydrogeology (3 hrs)
ESSC495/GPLN495 Environmental Assessment and Planning (3 hrs)
GEOG235 Economic Geography (3 hrs)
GEOG405 Aerial Photograph Interpretation (3 hrs)
GEOG320 Geography of the United States and Canada (3 hrs)
GEOG332 Urban Geography (3 hrs)
GEOG361 Geography of Population (3 hrs)
GPLN215 Introduction to Urban and Regional Planning (3 hrs)
SOCL306 The Urban Community (3 hrs)
SOCL334 Population (3 hrs)
ZOOL140 Biology of Animals (4 hrs)
ZOOL300 Natural History of Invertebrates (3 hrs)
ZOOL310 Natural History of Vertebrates (3 hrs)
ZOOL421 Entomology (3 hrs)
ZOOL422 Ichthyology (3 hrs)
ZOOL425 Ornithology (3 hrs)
ZOOL474 Herpetology (3 hrs)
ZOOL482 Aquatic Entomology (3 hrs)
ZOOL485 Mammalogy (3 hrs)

Minor Total23 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

* Biology majors minoring in conservation will take BIOL310 and BIOL311 on the major and substitute additional approved electives on the minor.

‡Students who prefer to elect ECON201-202 to satisfy general education requirements may count ECON 201 as an elective on the minor. Students who are required to take ECON201-202 for other purposes on their curricula, as in business administration, may not count it on this minor and must substitute an additional elective for ECON202.

#Students required to take ESSC108 Earth Science for non-science majors on a major or minor in the Geography and Geology Department will take an additional four hours of electives on this minor from the approved list.

Conservation and Resource Use Minor

This program is administered jointly by the heads of the Department of Biology; the Department of Economics; the Department of Geography and Geology; and the Department of Sociology, Anthropology and Criminology.

Students electing this minor must confer with the advising coordinator for conservation and resource use to obtain an approved schedule of electives. Substitutions on the approved program will count only if approved by the adviser.

Students are strongly urged to take PLSC202 State and Local Government.

Required Courses	14 hours
*BIOL107/ESSC107 Introduction to Environmental Science (3 hrs)	
BIOL224 Global Ecology and the Environment (4 hrs)	
‡ECON202 Principles of Microeconomics (3 hrs)	
<i>One course from the following:</i>	
#ESSC108 Earth Science for non-science majors (4 hrs)	
#ESSC110 The Dynamic Earth System (4 hrs)	
Elective Courses	9 hours
<i>Nine hours from the following selected in consultation with the advising coordinator:</i>	
BOTN130 Biology of Plants (4 hrs)	
BOTN215 Plants and People (3 hrs)	
BOTN354 Trees and Shrubs (3 hrs)	
BOTN450 Taxonomy and Ecology of Aquatic Vascular Plants (3 hrs)	
BOTN451 Freshwater Algae (3 hrs)	
BOTN455 Systematic Botany (3 hrs)	
BIOL310 Ecology (3 hrs)	
BIOL311 Laboratory in Ecology (2 hrs)	
BIOL410 Limnology (3 hrs)	
BIOL412 Biogeography (3 hrs)	
BIOL435 Wetland Ecosystems (3 hrs)	
BIOL436 Terrestrial Ecosystems (3 hrs)	
CHEM115 Chemistry and Society (3 hrs)	
CHEM415 Environmental Chemistry (3 hrs)	
ECON201 Principles of Macroeconomics (3 hrs)	
ECON336 Economics of Environment and Natural Resources (3 hrs)	
ECON337 Energy Economics and Policies (3 hrs)	
ESSC114 National Parks and Monuments (2 hrs)	
ESSC208 Natural Environmental Hazards (3 hrs)	
ESSC229 Rocks and Minerals (3 hrs)	

Environmental Biology Studies Minor

The minor in environmental studies has been designed for the non-science major who has a personal or professional interest in environmental aspects of biology. The primary goal of the minor is to provide prospective students with a basic foundation and understanding in environmental biology, and the pressing environmental issues that will face the human population in the 21st century. Students enrolled in this minor will be exposed to major themes of environmental biology (e.g. ecology, conservation and wildlife biology, aquatic and terrestrial biology and biology of plants and animals). This minor is not open to biology majors or to earth science majors.

In addition to the requirements for the major and general education requirements, all environmental biology studies minors need to complete:

Required Courses	11-12 hours
BIOL107/ESSC107 Introduction to Environmental Science (3 hrs)	
BIOL224 Global Ecology and the Environment (4 hrs)	
<i>One course from the following:</i>	
BIOL105 Introductory Biology for Non-Majors (4 hrs)	
BIOL110 Introductory Biology I (5 hrs)	
Elective Courses	9 hours
<i>Nine hours from the following:</i>	
BOTN130 Biology of Plants (3 hrs)	
BOTN215 Plants and People (3 hrs)	
BIOL247 Animal Behavior (3 hrs)	
BIOL225 Aquatic Biology (3 hrs)	
ZOOL140 Biology of Animals (3 hrs)	
ZOOL246 Wildlife of Michigan (3 hrs)	

Minor Total20-21 hours

Human Biology Minor

Required Courses 4-5 hours

†One course from the following:

- BIOL105 Introductory Biology for Non-Majors (4 hrs)
- BIOL110 Introductory Biology I (5 hrs)

Elective Courses 15-16 hours

15 to 16 hours from the following:

- ZOOL201 Human Anatomy and Physiology I (4 hrs)
- One course from the following:
 - ZOOL202 Human Anatomy and Physiology II (4 hrs)
 - ZOOL326 Human Physiology (3 hrs)
- BIOL201 Human Genetics (3 hrs)
- BIOL204 The Biology of Cancer (2 hrs)
- BIOL223 Human Embryonic Development (3 hrs)
- BIOL239 Biology of Aging (2 hrs)
- BIOL228 Germs, Plagues and Human Infections (3 hrs)
- ZOOL269 Biology of Sex and Gender (3 hrs)

Minor Total 20 hours

Note:

†Minors should start with either BIOL105 or BIOL110. For students choosing to take an additional course in human physiology after completing ZOOL201, they may choose either ZOOL202 or ZOOL326, but not both.

The Human Biology Minor is open to the biology major, however these students will not be able to apply BIOL110 toward the Human Biology Minor because it must be applied to the biology major. Instead, these students are required to make up 4 credit hours from the above electives or consult with an adviser for details.

Plant Biology Minor

Open to both Biology majors and non-majors. The minor is intended to provide students with opportunities to study plants from a variety of perspectives, ranging from molecular to ecological levels of organization. Students who are not majoring in biology will not have the necessary prerequisites for certain courses, so it is important to meet with a Plant Biology Minor adviser early in their program.

Required Course 4 hours

- *BOTN130 Biology of Plants (4 hrs)

Restricted Electives 16 hours

16 hours from the following

- †BIOL224 Global Ecology and the Environment (4 hrs)
- †BIOL412 Biogeography (3 hrs)
- BOTN215 Plants and People (3 hrs)
- BOTN354 Trees and Shrubs (3 hrs)
- BOTN404 Mycology (3 hrs)
- BOTN412 Plant Anatomy (3 hrs)
- †BOTN442 Plant Physiology (3 hrs)
- †BOTN445 Plant Biotechnology (3 hrs)
- BOTN450 Aquatic Plants (3 hrs)
- BOTN451 Freshwater Algae (3 hrs)
- BOTN455 Systematic Botany (3 hrs)

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

* No credit will be given to students who have completed BIOL120. Biology majors electing the plant biology minor must take an additional four credits of restricted electives in place of BOTN130.

† These courses have additional prerequisites other than BOTN130. Consult with adviser for details.

Zoology Minor

Students electing this minor must file an approved program of required/ elective courses with a faculty adviser and with the Department of Biology undergraduate coordinator. Any program changes require prior written approval of the faculty adviser and the Department of Biology undergraduate coordinator.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Biology Minor

Secondary, K-12 and Special
Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in biology, certification code DA. The Michigan Test for Teacher Certification (MTTC) covering this field is no. 17, "Biology."

Required Courses 24 hours

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- BIOL301 Genetics (3 hrs)
- BIOL310 Ecology (3 hrs)
- ZOOL326 Human Physiology (3 hrs)

One course from the following:

- †BIOL305 Cell and Molecular Biology (3 hrs)
- BIOL315 Evolution (3 hrs)

One course from the following:

- BIOL306 Cell and Molecular Biology and Genetics Laboratory (2 hrs)
- BIOL311 Laboratory in Ecology (2 hrs)

Minor Total for Science Majors 24 hours

For students minoring in Biology with secondary certification, but not majoring in a science teaching certification program must take the following courses:

- BIOL403 Methods for Teaching Secondary Biology (3 hrs)
- *BIOL406 Nature of Science (1 hr)

Minor Total for Non-Science Majors 28 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

*CHEM406, ESSC406, or PHY406 may be substituted for BIOL406.

†Students need to take CHEM121/122 General Chemistry I with lab (4 hrs) and CHEM123/124 General Chemistry II with lab (4 hrs) to satisfy the prerequisites for BIOL305.

Pre-Medicine (Allopathic and Osteopathic), Pre-Veterinary, Pre-Chiropractic, Pre-Optometry and Pre-Podiatry

Students can complete course requirements at EMU for admission to medicine, optometry, podiatry, veterinary and chiropractic programs. For information on these programs, see the advising coordinator for premedical programs.

While medical schools do not prescribe a pre-medical curriculum, they expect a thorough understanding of modern concepts in biology, chemistry and physics, and all value mathematical competence, with some specifying a course sequence in mathematics. Most pre-medical students, therefore, select a major in one of these areas, although this is not mandatory. Students should earn the bachelor's degree prior to admission to medical school.

An important admission requirement for most medical schools, the Medical College Admission Test (MCAT), is given in April and August in various centers throughout the nation. This test should be taken after prerequisites in biology, chemistry and physics are completed, typically during the junior year.

Each allopathic and osteopathic medical school establishes its own admission requirements. The course requirements are similar but differ enough so that students should consult the catalogs of the schools in which they are interested. The latest edition of *Medical School Admission Requirements*, available at the reference desk of Halle library and in the premedicine adviser's office, should be consulted. The introductory chapters of this book should be read by every prospective medical student.

If students electing the premedicine sequence are not achieving at least a 2.75 GPA (overall and in their major), their chances of acceptance by a medical school are minimal, and they should plan their programs so that other professional or vocational goals are possible.

Students planning to apply for admission to a medical school should plan their schedule to include the following general requirements:

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- BIOL301 Genetics (3 hrs)
- BIOL305 Cell and Molecular Biology
- BIOL306 Cell and Molecular Biology and Genetics Laboratory
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- CHEM451 Biochemistry I (3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- Elective in English language or literature (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- Sociology and psychology courses (8 hrs)

Because of the nature of the premedical program, if the student is a biology or chemistry major it is almost mandatory to follow the first year as patterned below.

First Year — Pre-Medicine

First Semester..... 13-19 hours

- BIOL110 Introductory Biology I (5 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- ‡Mathematics (2-4 hrs)
- General education (2-6 hrs)

†Second Semester 14-20 hours

- BIOL120 Introductory Biology II (5 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- ‡Mathematics (2-4 hrs)
- General education (3-7 hrs)

Note:

‡Prior to registering for the second semester, the student should see the premedical coordinator.

‡Students with one to two years of less than high-level algebra take MATH105 College Algebra. Students with only one year of algebra take MATH104 Intermediate Algebra, followed by MATH105 College Algebra. Students without trigonometry take MATH107 Plane Trigonometry. Although students may need to take MATH104 Intermediate Algebra, MATH105 College Algebra or MATH107 Plane Trigonometry these courses do not satisfy general education requirements. Students must still complete a mathematics course from the list of approved mathematics courses; biology majors will satisfy both general education and biology major requirements by taking MATH120 Calculus I.

Department of Chemistry

Address: 225 Mark Jefferson
 Phone: 734.487.0106
 Web site: www.emich.edu/public/chemistry

See page 266 for course descriptions.

The Department of Chemistry offers both professional and general level programs in chemistry and biochemistry and a biochemistry/toxicology program. The department also administers preprofessional programs in dentistry, mortuary science and pharmacy. Although the premedicine program is not administered by the department, the biochemistry and chemistry curricula provide excellent preparation for a career in medicine.

Housed in the Mark Jefferson Science Complex, the department has laboratories available for all areas of study. Major items of equipment include: a Jeol 400 MHz super conducting nuclear magnetic resonance (NMR) spectrometer; research-quality UV, visible, Raman and Fourier-transform IR spectrophotometers; gas and high performance liquid chromatographs; gas and liquid chromatograph-mass spectrometers; fluorometers and a spectrofluorometer; atomic absorption spectrophotometers, one with electrothermal atomization; electromechanical trace analyzer; multi angle laser light scattering and double Nd:YAG pulsed laser system; HP 4192 impedance analyzer; CEM microwave synthesizers; PCR thermal cycler; preparative ultracentrifuge; fermentor; DNA sequencer and automated peptide synthesizer. In addition, a computer laboratory and specialized facilities and equipment for radiochemistry and cell culture are available.

The Department of Chemistry offers Honors Chemistry and Society, Honors General Chemistry I and II, Honors Quantitative Analysis and Honors Organic Chemistry Laboratory. Eligibility for these courses is based on admission to the Honors College, or the student's interest and performance in previous chemistry courses. Prospective candidates are selected by instructors and the Chemistry Honors Coordinator, or students may apply to the Honors Coordinator for permission to enroll in an honors course.

The department also offers graduate study leading to the master's degree in chemistry. The M.S. degree program is described in the graduate catalog.

Accreditation: The professional chemistry curriculum (with an appropriate selection of electives) is certified by the American Chemical Society.

Advising for students desiring to pursue a program in chemistry is available through either the undergraduate advising coordinator, an adviser identified on the adviser list in the Department of Chemistry office or an area advising coordinator. A description of undergraduate and graduate programs can be found on the department web site.

General Biochemistry Curriculum

This curriculum is designed for students with an interest in biochemistry but who require a less extensive background than that presented in the professional biochemistry curriculum. It is often selected by students in premedical and pre dental programs.

The program includes a group minor composed of the required courses in biology, mathematics and physics. No other minor is needed to meet graduation requirements.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....55-57 hours
 Required Courses50-52 hours

- BIOL110 Introductory Biology (5 hrs)
- ‡BIOL301 Genetics (3 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- †CHEM270/271 Survey of Organic Chemistry with lab (5 hrs)
- CHEM281 Quantitative Analysis (4 hrs)

CHEM361 Fundamentals of Physical Chemistry (3 hrs)
CHEM381 Instrumentation for Chemical Technology (2 hrs)
CHEM451 Biochemistry I (3 hrs)
CHEM452 Biochemistry II (3 hrs)
CHEM453 Biochemistry Laboratory (2 hrs)
MATH120 Calculus I (4 hrs)

One course from the following:

PHY221 Mechanics and Sound (4 hrs)
PHY223 Mechanics and Sound (5 hrs)

One course from the following:

PHY222 Electricity and Light (4 hrs)
PHY224 Electricity and Light (5 hrs)

Elective Courses 5 hours

‡Five credits from any biology courses 300-level or above.

Minor Requirements 0 hours

No minor is required.

University Elective Courses 27-29 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Premedicine and pre-dentistry students should substitute CHEM371, CHEM372, CHEM373 Organic Chemistry I-II with lab to satisfy the requirements for organic chemistry of most medical and dental schools.

‡Completion of BIOL110, or equivalent coursework, is required for Biochemistry students to obtain Biology departmental permission for 300- and 400-level biology courses.

Biochemistry/Toxicology Curriculum

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 4-5 hours

One course from the following:

PHY221 Mechanics, Sound and Heat (4 hrs)
PHY223 Mechanics and Sound (5 hrs)

Major Requirements 69 hours

†BIOL110 Introductory Biology (5 hrs)
BIOL301 Genetics (3 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
CHEM270 Survey of Organic Chemistry (4 hrs)
CHEM271 Organic Chemistry Laboratory (1 hr)
CHEM281 Quantitative Analysis (4 hrs)
CHEM361 Fundamentals of Physical Chemistry (3 hrs)
CHEM381 Instrumentation for Chemical Technology (2 hrs)
CHEM411 Toxicology I (2 hrs)
CHEM412 Toxicology II (3 hrs)
CHEM413 Toxicology Laboratory (2 hrs)
CHEM451 Biochemistry I (3 hrs)
CHEM452 Biochemistry II (3 hrs)
CHEM453 Biochemistry Laboratory (2 hrs)
MATH120 Calculus I (4 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)
PHY222 Electricity and Light (5 hrs)
ZOOL404 Mammalian Histology (3 hrs)

One course from the following:

BIOL305 Cell and Molecular Biology (3 hrs)
ZOOL326 Human Physiology (3 hrs)

One course from the following:

MATH170 Elementary Statistics (3 hrs)
PSY205 Quantitative Methods in Psychology (3 hrs)

Enrollment in at least two hours from a toxicology cooperative education project (CHEM487/488/489) (2 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses 10-11 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Completion of BIOL110, or equivalent coursework, is required for Biochemistry students to obtain Biology departmental permission for 300- and 400-level biology courses.

Professional Biochemistry Curriculum

The professional biochemistry curriculum prepares students for graduate study or a research career in biochemistry. The program includes a group minor composed of the required courses in biology, mathematics and physics. No other minor is needed to meet graduation requirements.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 78 hours

Required Courses 71 hours

††BIOL110 Introductory Biology (5 hrs)
†BIOL301 Genetics (3 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
CHEM281 Quantitative Analysis (4 hrs)
CHEM371 Organic Chemistry I (3 hrs)
CHEM372 Organic Chemistry II (3 hrs)
CHEM373 Organic Chemistry Laboratory (2 hrs)
CHEM451 Biochemistry I (3 hrs)
CHEM452 Biochemistry II (3 hrs)
CHEM453 Biochemistry Laboratory (2 hrs)
CHEM461 Chemical Thermodynamics and Kinetics (3 hrs)
CHEM463 Physical Chemistry Laboratory (2 hrs)
CHEM465 Quantum and Statistical Mechanics (3 hrs)
MATH120 Calculus I (4 hrs)
MATH121 Calculus II (4 hrs)
MATH122 Elementary Linear Algebra (3 hrs)
MATH223 Multivariable Calculus (4 hrs)
PHY223 Mechanics and Sound (5 hrs)
PHY224 Electricity and Light (5 hrs)

Two hours from the following:

CHEM487/488/489 Cooperative Education in Chemistry (1/2/3 hrs)
CHEM497/498/499 Undergraduate Research in Chemistry (1/2/3 hrs)

Elective Courses 7 hours

Four hours from the following:

CHEM332 Inorganic Chemistry (3 hrs)
CHEM411 Toxicology I (2 hrs)
CHEM412 Toxicology II (3 hrs)
CHEM413 Toxicology Laboratory (2 hrs)
CHEM433 Inorganic-Organic Synthesis Laboratory (2 hrs)
CHEM475 Introduction to Polymer Chemistry (3 hrs)
CHEM477/478/479 Special Topics (1/2/3 hrs)
CHEM481 Instrumental Analysis (4 hrs)
CHEM485 Introduction to Radiotracer Techniques (2 hrs)
CHEM551 Macromolecular Biochemistry (2 hrs)
CHEM554 Protein Structure and Function (2 hrs)
CHEM555 Neurochemistry (3 hrs)
CHEM572 Spectrometric Organic Structure Determination (4 hrs)

†Three hours from any courses in biology 300-level or above.
 ††Completion of BIOL110, or equivalent coursework, is required for biochemistry students to obtain biology departmental permission for 300- and 400-level biology courses.

Minor Requirements	0 hours
<i>No minor is required.</i>	
University Elective Courses	6 hours
Program Total	124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 ††Completion of BIOL110, or equivalent coursework, is required for biochemistry students to obtain biology departmental permission for 300- and 400-level biology courses.

General Chemistry Major

The general chemistry major is for students who seek work in the chemical or pharmaceutical industry, who are preparing for careers in health fields such as medicine or dentistry, or who are interested in a career combining chemistry with fields such as business, patent law, technical writing or industrial health and safety. Students who are interested in graduate training in chemistry should elect the professional chemistry curriculum.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Additional Requirements	12-14 hours
MATH120 Calculus I (4 hrs)	
<i>One course from the following:</i>	
PHY222 Electricity and Light (4 hrs)	
PHY224 Electricity and Light (5 hrs)	
<i>One course from the following:</i>	
PHY221 Mechanics, Sound and Heat (4 hrs)	
PHY223 Mechanics and Sound (5 hrs)	

Major Requirements.....	30 hours
Required Courses	25 hours
CHEM121/122 General Chemistry I with lab (4 hrs)	
CHEM123/124 General Chemistry II with lab (4 hrs)	
CHEM281 Quantitative Analysis (4 hrs)	
CHEM361 Fundamentals of Physical Chemistry (3 hrs)	
CHEM371 Organic Chemistry I (3 hrs)	
CHEM372 Organic Chemistry II (3 hrs)	
CHEM373 Organic Chemistry Laboratory (2 hrs)	
CHEM381 Instrumentation for Chemical Technology (2 hrs)	
Elective Courses	5 hours
<i>Five hours from 300- and 400-level courses in chemistry.</i>	

Minor Requirements	20 hours
University Elective Courses	20-22 hours
Program Total	124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Chemistry Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification

for the Michigan Department of Education Secondary Provisional Certificate endorsed in chemistry, certification code DC, and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The Michigan Test for Teacher Certification (MTTC) covering this field is no. 18, "Chemistry."

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Additional Requirements	12-14 hours
MATH120 Calculus I (4 hrs)	
<i>One course from the following:</i>	
PHY222 Electricity and Light (4 hrs)	
PHY224 Electricity and Light (5 hrs)	
<i>One course from the following:</i>	
PHY221 Mechanics, Sound and Heat (4 hrs)	
PHY223 Mechanics and Sound (5 hrs)	

Major Requirements.....	32 hours
Required Courses	29-30 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM281 Quantitative Analysis (4 hrs)
- CHEM361 Fundamentals of Physical Chemistry (3 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- CHEM381 Instrumentation for Chemical Technology (2 hrs)
- CHEM406 The Nature of Science (1 hr) or equivalent
(see course description)

- One course from the following:*
- CHEM351 Fundamentals of Biochemistry (4 hrs)
- CHEM451 Biochemistry I (3 hrs)

Elective Courses	2-3 hours
<i>Two to Three hours from 300- and 400-level courses in chemistry.</i>	

Professional Studies	39 hours
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Pre-Admission Phase: The Learner and the Community..... 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context..... 10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology..... 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

- One course from the following:*
- CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)
- PHY325 Methods of Teaching the Physical Sciences (3 hrs)

Phase III: Capstone Experience..... 12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements 20-25 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 143-150 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Professional Chemistry Curriculum

This curriculum provides the necessary background for those planning to become professional chemists. With appropriate electives, it meets the requirements established by the American Chemical Society. Students successfully completing the curriculum are prepared to undertake graduate study in chemistry or enter technical positions in industrial and governmental research. The program includes a group minor composed of the required courses in mathematics and physics. No other minor is needed to meet graduation requirements.

For students planning graduate study in chemistry (especially organic chemistry), 10 hours or an equivalent reading knowledge of a foreign language, preferably German, are recommended.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 69-70 hours
Required Courses 67-68 hours

CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
CHEM281 Quantitative Analysis (4 hrs)
CHEM371 Organic Chemistry I (3 hrs)
CHEM372 Organic Chemistry II (3 hrs)
CHEM373 Organic Chemistry Laboratory (2 hrs)
CHEM432 Advanced Inorganic Chemistry (3 hrs)
CHEM433 Inorganic-Organic Synthesis Laboratory (2 hrs)
CHEM461 Chemical Thermodynamics and Kinetics (3 hrs)
CHEM463 Physical Chemistry Laboratory (2 hrs)
CHEM465 Quantum and Statistical Mechanics (3 hrs)
CHEM481 Instrumental Analysis (4 hrs)

One course from the following:

CHEM351 Foundations of Biochemistry (4 hrs)
CHEM451 Biochemistry I (3 hrs)

Two hours from one of the following:

CHEM487/488/489 Cooperative Education in Chemistry (1/2/3 hrs)
CHEM497/498/499 Undergraduate Research in Chemistry (1/2/3 hrs)

MATH120 Calculus I (4 hrs)
MATH121 Calculus II (4 hrs)
MATH122 Elementary Linear Algebra (3 hrs)
MATH223 Multivariable Calculus (4 hrs)
PHY223 Mechanics and Sound (5 hrs)
PHY224 Electricity and Light (5 hrs)

Elective Courses 2 hours

Choose one advanced course (or two 1-hour courses) from the following. Certification by American Chemical Society requires appropriate selection of electives from among those indicated by "†."

Chemistry
CHEM411 Toxicology I (2 hrs)
CHEM412 Toxicology II (3 hrs)
CHEM413 Toxicology Laboratory (2 hrs)
CHEM415 Environmental Chemistry (3 hrs)
†CHEM452 Biochemistry II (3 hrs)
†CHEM453 Biochemistry Laboratory (2 hrs)
†CHEM475 Introduction to Polymer Chemistry (3 hrs)

†CHEM485 Introduction to Radiotracer Techniques (2 hrs)
CHEM477/478/479 Special Topics (1/2/3 hrs)
†CHEM498/499 Undergraduate Research in Chemistry (2/3 hrs)
†CHEM551 Macromolecular Biochemistry (2 hrs)
†CHEM554 Protein Structure and Function (2 hrs)
†CHEM555 Neurochemistry (3 hrs)
†CHEM561 Quantum Chemistry and Spectroscopy (2 hrs)
†CHEM562 Statistical Mechanics and Chemical Kinetics (2 hrs)
†CHEM565 Nuclear Chemistry (3 hrs)
†CHEM571 Advanced Organic Chemistry (3 hrs)
†CHEM572 Spectrometric Organic Structure Determination (4 hrs)
†CHEM574 Advanced Organic Chemistry Topics (2 hrs)
CHEM581 Advanced Analytical Chemistry (3 hrs)
Mathematics and Computer Science
MATH425 Mathematics for Scientists (3 hrs)
Other 400-level courses with department permission
Physics
PHY450 Electricity and Magnetism II (3 hrs)
PHY452 Electrical Measurements (4 hrs)
PHY456 Electronics for Scientists (4 hrs)
PHY471 Atomic and Nuclear Physics (3 hrs)
Other 400-level courses with department permission

Minor Requirements 0 hours
No minor is required.

University Elective Courses 14-15 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Biochemistry Minor

Required Courses 22-23 hours

CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
†CHEM270/271 Survey of Organic Chemistry with lab (5 hrs)
CHEM281 Quantitative Analysis (4 hrs)
CHEM453 Biochemistry Laboratory (2 hrs)

One course from the following:

CHEM351 Foundations of Biochemistry (4 hrs)
CHEM451 Biochemistry I (3 hrs)

Minor Total 22-23 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
††The CHEM371/372/373 Organic Chemistry I/II/lab sequence may be substituted for CHEM270/271 Survey of Organic Chemistry with lab if a stronger background is desired.

Chemistry Minor

Required Courses 17 hours

CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123/124 General Chemistry II with lab (4 hrs)
†CHEM270/271 Survey of Organic Chemistry with lab (5 hrs)
CHEM281 Quantitative Analysis (4 hrs)

Elective Courses 3 hours
Three hours from courses numbered above 200 in chemistry.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above. ††The CHEM371/372/373 Organic Chemistry III/lab sequence may be substituted for CHEM270/271 Survey of Organic Chemistry with lab if a stronger background is desired. CHEM 371/372/373 cannot be used as elective hours in chemistry.

Chemistry Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in chemistry, certification code DC. The Michigan Test for Teacher Certification (MTTC) covering this field is no. 18, "Chemistry."

Required Courses 24 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- ††CHEM270/271 Survey of Organic Chemistry with lab (5 hrs)
- CHEM281 Quantitative Analysis (4 hrs)

Choose one option from the following:

Option I

- CHEM351 Foundations of Biochemistry (4 hrs)
- Electives: Three hours in Chemistry from courses numbered about 200. If a student is a nonscience major, then that student will take CHEM325 or PHY325 (3 hrs) as an elective course and either CHEM406, BIOL406, ESSC406, or PHY406 (1 hr).

Option II

- CHEM451 Biochemistry I (3 hrs)
- Four elective hours in chemistry from courses numbered above 200. If a student is a nonscience major, then that student will take CHEM325 or PHY325 (3 hrs) as an elective course and either CHEM406, BIOL406, ESSC406, or PHY406 (1 hr), providing one additional elective hour in chemistry.

Minor Total 24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above. ††The CHEM371/372/373 Organic Chemistry I/II/lab sequence may be substituted for CHEM270/271 if a stronger background is desired. The sequence 371/372/373 will then transfer as 8 hours.

Pre-Professional Programs

Pre-Dentistry

Most students select either a chemistry major and biology minor or a biology major and chemistry minor as preparation for admission to dental school. The exact requirements for a particular dental school can be found in the publication *Admission Requirements of U.S. and Canadian Dental Schools*, available in the office of the pre-dentistry adviser.

The majority of pre-dental students complete four years of undergraduate work, earning a B.S. degree. Since admission to dental school is very competitive, it is recommended that alternative career plans be a part of every pre-dental student's program.

Students seeking admission to dental school take the Dental Aptitude Test, usually late in the junior year or early in the senior year. Application is generally made between August and December for the class beginning

the following fall. Virtually all dental schools require the use of a central agency, the American Association of Dental Schools Application Service, when applying for admission.

Science courses required for admission into most dental schools are listed below. Careful scheduling will allow the student to complete these courses in three years.

Required Courses

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- †One advanced biology course with lab

Note:

†Introductory courses in histology or human physiology, biochemistry and microbiology are recommended. One year of English composition/ literature. One course in sociology, psychology or anthropology.

Dental Hygiene and Dental Assisting

Eastern Michigan University offers no degrees or certificates in these areas. Two-year certificates and four-year degree programs are available at the University of Michigan, Ferris State University and the University of Detroit-Mercy. Two-year programs also are available at numerous community colleges.

Students interested in these programs should plan on transferring after completing their freshman year at EMU. Liberal arts preparation in English composition, speech, chemistry (CHEM117/118 Fundamentals of Chemistry with lab), psychology, sociology and political science, plus electives in social science, natural science and humanities, generally will be transferable. More specific descriptions of requirements should be obtained by writing to the schools in question since requirements vary from school to school.

Pre-Mortuary Science

The pre-mortuary science program requires two academic years. Before entering the professional mortuary school, the student must complete at least 60 hours of college work that includes the following science and mathematics courses:

Recommended Courses

- BIOL105 Introductory Biology for Non-majors (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- MATH104 Intermediate Algebra (3 hrs)
- Another mathematics elective may be substituted.*
- PSY101 General Psychology (3 hrs)

The Board of Examiners in Mortuary Science recommends the following courses for elective hours. They include behavioral sciences, business, counseling, first aid and public speaking.

Recommended Elective Courses

- ACC240 Principles of Financial Accounting (3 hrs)
- COUN450 An Introduction: Counseling Concepts and Skills (3 hrs)
- CTAC225 Listening Behavior (3 hrs)
- CTAC226 Nonverbal Communication (3 hrs)
- CTAC227 Interpersonal Communication (3 hrs)
- CTAS121/124 Fundamentals of Speech (2/3 hrs)
- ECON200 The American Economy (3 hrs)
- ECON201 Principles of Macroeconomics (3 hrs)
- HLED210 Standard American Red Cross First Aid (2 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- MKTG363 Retailing (3 hrs)

- PSY225 Psychology of Religion (3 hrs)
- PSY323 Psychology of Human Aging (3 hrs)
- SOCL105 Introductory Sociology (3 hrs)
- SOCL311 Social Gerontology (3 hrs)

Pre-Pharmacy

Two years of college work (60 transferable hours, including the courses listed below) are required for admission to a professional school of pharmacy. Some schools have additional required or recommended courses.

Programs in pharmacy require two to four additional years of study after acceptance into the program. Clinical experience is required for some, especially doctoral programs. These are minimal requirements. To be competitive for some pharmacy programs, students may need to complete a bachelors program. It is strongly advised that students contact pharmacy schools directly to determine whether additional coursework and PCAT exam scores are required.

Recommended Courses

- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- MICR328 Microbiology (3 hrs)
- MATH120 Calculus I (4 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- One biology course with a lab (Some schools require additional courses.)
- Two social science courses
- Two humanities courses (two foreign language courses may be substituted.)

Department of Communication and Theatre Arts

Address: 124 Quirk
Phone: 734.487.3131
E-mail: dennis.beagen@emich.edu
Web site: www.emich.edu/public/cta/

See page 276 for course descriptions.

The Department of Communication and Theatre Arts provides students with communication and performance skills fundamental to careers in broadcasting, theatre, teaching, public relations, sales and such related professions as law and the ministry. Communication theory and practice are explored in various course offerings in interpersonal, small group, organizational and public communication. Production and performance theories and techniques emphasized in telecommunications media and film studies are enhanced by practical experiences at two campus radio stations (WEMU-FM and WQBR), in closed-circuit TV studios and through internships and co-ops in the professional field. The arts management and communication technology curricula require business studies in addition to aesthetic and pragmatic communication skills. All the department's programs, including forensics, interpretation/performance studies, theatre arts and dramatic productions for the young, provide students with opportunities for developing such personal qualities as creativity, leadership, self-expression and social responsibility.

Advising is initiated by students with a academic adviser who shares the student's interests and objectives. An adviser should be consulted by each prospective major or minor student.

Graduate study leads to a master of arts in communication; a master of arts emphasizing interpretation/performance studies; a master of arts in arts administration or a master of fine arts in drama/theatre for the young; and a master of arts in theatre arts. For descriptions of graduate courses and programs in the Department of Communication and Theatre Arts, consult the graduate catalog.

Arts Management Major

The arts management curriculum provides career training and practical experience for those with a passion for the arts and whose talents are in the field of administration and/or marketing. The arts manager not only must develop a variety of management skills but also must maintain a high degree of sensitivity to aesthetics.

Students are provided a broad background in all of the arts with an opportunity to study a specific art in more depth. Additionally, each student gains vital practical experience working in the arts during internships on the University campus and in an approved off-campus professional arts organization.

Training in the arts is combined with the development of skills in accounting, advertising, personnel management, labor relations and various other areas of business through a program of study that includes management and marketing. Graduates are equipped to enter the arts management field or to pursue further study in arts administration.

Because the arts management field is rapidly evolving, it is advantageous for the student to maintain regular contact with an adviser during their entire program to avoid unnecessary difficulties before and after completion of the program. Arts institutions vary in their personnel needs.

EMU's arts management curriculum is divided into four sections: general education requirements, arts management major, a management or marketing minor (see College of Business) and two internships.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....38 hours
Required Courses26 hours
Arts Fundamentals17 hours

- ART107 Art History Survey I (3 hrs)
- ART108 Art History Survey II (3 hrs)
- CTAR150 Introduction to Theatre (3 hrs)
- CTAR155 Producing Theatre (3 hrs)
- DANC102 Modern Dance Fundamentals (3 hrs)
- MUSC107 Music Appreciation (2 hrs)

Media and Arts Management.....9 hours
CTAR452 Arts Management (3 hrs)
CTAT334 Radio-Television News (3 hrs)
JRNL215 News Writing and Reporting (3 hrs)

Restrictive Elective Courses10 hours
One course from each of the following areas:

- Academic dance, art, music, theatre.
- Strongly Recommended Elective Courses*
- CTAR453 Marketing the Arts (3 hrs)
- CTAR454 Law, Public Policy and the Arts (3 hrs)
- A course in technical theatre

Internships2 hours

Two are required for this major: a one-semester, on-campus internship and a one-semester practicum with an approved off-campus arts institution. Application procedures and minimum requirements for credit should be obtained from the advising coordinator not later than the first semester of the junior year.

On-campus internships are approved part-time work as a member of the management staff of such EMU arts institutions as the Ford Gallery or EMU Dancers.

Practica are available to the junior/senior-level student who has a minimum GPA of 2.5 in the arts management curriculum.

Minor Requirements	21 hours
<i>Select from either management or marketing in consultation with the arts management advising coordinator.</i>	
University Elective Courses	25 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Communication Major

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Major Requirements.....	36 hours
Required Courses	24 hours

- CTAC227 Interpersonal Communication (3 hrs)
- CTAC354 Organizational Communication (3 hrs)
- CTAC359 Small Group Communication (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)
- One course from the following:*
 - CTAC224 Public Speaking (3 hrs)
 - CTAC350 Persuasion (3 hrs)
- One course from the following:*
 - CTAC274 Intercultural Communication (3 hrs)
 - CTAC275 Interracial/Interethnic Communication (3 hrs)

- Two courses from the following:*
 - 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)

Restricted Elective Courses	12 hours
<i>Twelve hours from the list of restricted elective courses below that were not selected as a required course above:</i>	

- CTAC224 Public Speaking (3 hrs)
- CTAC225 Listening Behavior (3 hrs)
- CTAC226 Nonverbal Communication (3 hrs)
- CTAC260 Gender Communication (3 hrs)
- CTAC274 Intercultural Communication (3 hrs)
- CTAC350 Persuasion (3 hrs)
- CTAC352 Communication in Negotiation (3 hrs)
- CTAC356 Argumentation and Debate (3 hrs)
- CTAC357 Interviewing as Communication (3 hrs)
- CTAC370 Nonprofit Organizational Communication (3 hrs)
- CTAC372 Assertive Communication (3 hrs)
- CTAC373 Family Communication (3 hrs)
- CTAC275 Interracial/Interethnic Communication (3 hrs)
- CTAC376 Communication and Conflict Resolution (3 hrs)
- CTAC379 Special Topics (3 hrs)
- 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)

- A maximum of six hours from the following courses:*
 - CTAA166/266/366/466 Forensics (1/1/1/1 hr)
 - CTAC387/388/389 Cooperative Education in Communication (1/2/3 hrs)
 - CTAC487/488/489 Internship in Communication (1/2/3 hrs)
 - CTAC497/498/499 Independent Study (1/2/3 hrs)

One course from the following may be substituted for a Restricted Elective:

- CTAO205 Voice and Articulation (3 hrs)
- CTAO210 Interpretative Reading (3 hrs)
- CTAT241 Radio-Television-Film Announcing (3 hrs)

Minor Requirements	21 hours
University Elective Courses	27 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Communication Technology Curriculum

Communication technology is a joint program offered by the Department of Interdisciplinary Technology and the Department of Communication and Theatre Arts. This curriculum is designed to provide the background necessary for graduates to find employment as managers in communication-based industries. The program emphasis is on having the student acquire those business, manufacturing, media, computer and communication skills necessary for employment in today's communication technology industries and business organizations.

An active articulation agreement exists between this program and Schoolcraft College. See page 11 for further details.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Major Requirements.....	65 hours
Media Production	9 hours

- CTAT130 Introduction to Electronic Media (3 hrs)
- CTAT141 Audio and Video Production for NON-Majors (3 hrs)
- One course from the following:*
 - CTAT331 Intermediate Radio Production and Direction (3 hrs)
 - CTAT332 Intermediate Television Production and Direction (3 hrs)

Transmission Systems.....	9 hours
CMT305 Communication Transmission Systems (3 hrs)	
CMT408 Telephone Technology (3 hrs)	
ELEC120 Principles of Electrical Theory (3 hrs)	

Computer Technology	12 hours
<i>Choose one option from the following:</i>	

- Option I: Computer Programming
 - COSC138 Computer Science I (3 hrs)
 - COSC238 Computer Science II (3 hrs)
 - COSC239 Assembly and Machine Language (3 hrs)
 - COSC255 Introduction to Computer Hardware and Software Systems (3 hrs)
- Option II: Information Management
 - IS219 File Processing and COBOL Programming (3 hrs)
 - IS380 Database Concepts (3 hrs)
 - IS420 Business Data Communications & Computer Networks (3 hrs)
- One course from the following:*
 - IS442 Information Resource Management (3 hrs)
 - IS417 Systems Analysis and Design (3 hrs)
- Option III: Graphic Applications
 - CMT205 Digital PhotoTechnology (3 hrs)
 - CMT301 Multimedia Authoring (3 hrs)
 - CMT421 Web Publishing Technology (3 hrs)
 - CMT436 Electronic Publishing Technology (3 hrs)

Communication Theory and Practice	6 hours
CTAC227 Interpersonal Communication (3 hrs)	
CTAC354 Organizational Communication (3 hrs)	
Business and Investment Skills	6 hours
MKTG360 Principles of Marketing (3 hrs)	
PSY205 Quantitative Methods in Psychology (3 hrs)	
Management Skills	6 hours
ACC130 Accounting for Non-Business Majors (3 hrs)	
MGMT202 Business Communication (3 hrs)	
Interdisciplinary Technology	17 hours
CMT121 Graphic Communication (3 hrs)	
CMT231 Introduction to Computer Graphic Systems (3 hrs)	
CMT409 Emerging Technologies in Storage and Retrieval (3 hrs)	
CMT425 Communication Technology and Social Change (3 hrs)	
CMT470 Senior Seminar in Communication Technology (2 hrs)	
CMT387 Cooperative Education (3 hrs)	
Minor Requirements	0 hours
<i>No minor is required.</i>	
University Elective Courses	19 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Comprehensive Major in Communication and Theatre Arts

The comprehensive major allows each student to develop a variety of communication skills with one or two areas of concentration (12 to 18 credit hours each). Within the 36 credit hours, at least nine must be in 300- and 400-level courses. Majors should plan their course selections carefully with a departmental adviser and present a copy of this plan to Academic Records and Certification when requesting senior checkout.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements.....6 hours
One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC227 Interpersonal Communication (3 hrs)

One course from the following:

- CTAR150 Introduction to Theatre (3 hrs)
- CTAR151 African American Theatre: An Introduction (3 hrs)
- CTAR158 Fundamentals of Acting (3 hrs)
- CTAR222 Drama and Play in Human Experience (3 hrs)
- CTAT145 Introduction to Film Appreciation (3 hrs)

Major Requirements.....36 hours

Required Courses

- CTAO205 Voice and Articulation (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)

Restricted Elective Courses

At least three credits from four of the five following concentrations

I. Communication

- CTAC274 Intercultural Communication (3 hrs)
- CTAC350 Persuasion (3 hrs)
- CTAC354 Organizational Communication (3 hrs)
- CTAC359 Small Group Communication (3 hrs)

II. Interpretation/ Performance Studies

- CTAO210 Interpretative Reading (3 hrs)

III. Electronic Media and Film Studies

- CTAT130 Introduction to Electronic Media (3 hrs)
- CTAT131 Introduction to Audio Production and Direction (2 hrs)

- CTAT132 Introduction to Video Production and Direction (2 hrs)
- CTAT141 Audio and Video Productions for Non-Majors (3 hrs)
- CTAT145 Introduction to Film Appreciation (3 hrs)
- CTAT445 Film Theory and Criticism (3 hrs)
- CTAT446 Contemporary Problems in Electronic Media (3 hrs)

IV. Theatre arts

- CTAR151 African American Theatre: An Introduction (3 hrs)
 - CTAR152 Technical Theatre: Scenery and Lighting (2 hrs)
 - CTAR153 Technical Theatre: Costume and Makeup (2 hrs)
 - CTAR155 Producing Theatre (3 hrs)
 - CTAR158 Fundamentals of Acting (3 hrs)
 - CTAR450 History of the Theatre to 1642 (3 hrs)
 - CTAR451 History of the Theatre: 1642 to the Present (3 hrs)
- ### V. Educational drama
- CTAR222 Drama and Play in Human Experience (3 hrs)
 - CTAR322 Theatre for the Young (3 hrs)
 - CTAR323 Improvising and Role-Play (3 hrs)
 - CTAR327 Plays for the Young (3 hrs)
 - CTAR429 History and Theory of Developmental Drama/Theatre (3 hrs)

Concentration..... 9-15 hours

At least one concentration (above) selected in consultation with advising coordinator (hours here are in addition to the restricted elective courses above)

Elective Courses

Three to nine hours selected from areas outside the concentration

Minor Requirements

University Elective Courses

Program Total

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Interdisciplinary Major in Children's Literature and Drama/Theatre for the Young

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Required Courses

- CTAR327 Plays for the Young (3 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)

One course from the following

- LITR161 Native American Literature (3 hrs)
- LITR208 Multicultural Children's Literature (3 hrs)
- LITR160 African American Literature (3 hrs)

One course from the following:

- LITR351 World Mythology (3 hrs)
- LITR352 Folk Literature: Ballads and Folk Tales (3 hrs)

One course from the following:

- ENGL450 Children's Literature: Criticism and Response (3 hrs)
- ENGL451 Writing about Controversy in Literature for the Young (3 hrs)

One course from the following:
 CTAR222 Drama and Play in Human Experience (3 hrs)
 CTAR323 Improvising and Role Play (3 hrs)

One course from the following
 CTAR322 Theatre for the Young (3 hrs)
 CTAR324 Oral Interpretation of Literature for
 the Young (3 hrs)

Restricted Elective Courses15 hours

CTAO210 Interpretative Reading (3 hrs)
 CTAR222 Drama and Play in Human Experience (3 hrs)
 CTAR322 Theatre for the Young (3 hrs)
 CTAR323 Improvising and Role Play (3 hrs)
 CTAR324 Oral Interpretation of Literature
 for the Young (3 hrs)
 CTAR326 Drama/Theatre for Persons with Disabilities (3 hrs)
 CTAR327 Plays for the Young (3 hrs)
 CTAR329 Performing Theatre for the Young (3 hrs)
 CTAR497/498/499 Independent Study (1/2/3 hrs)
 ENGL450 Children's Literature: Criticism and
 Response (3 hrs)
 ENGL451 Writing about Controversy in Literature
 for the Young (3 hrs)
 LITR161 Native American Literature (3 hrs)
 LITR208 Multicultural Children's Literature (3 hrs)
 LITR251 The Bible as Literature (3 hrs)
 LITR160 African American Literature (3 hrs)
 LITR351 World Mythology (3 hrs)
 LITR352 Folk Literature: Ballads and Folk Tales (3 hrs)
 LITR453 Children's Literature: Picture Books (3 hrs)
 LITR454 Children's Literature: Fiction (3 hrs)
 LITR497/498/499 Independent Study (1/2/3 hrs)
*Occasionally special topics courses may be offered (such as
 children's film, storytelling, or puppetry) which may be substi-
 tuted for a restricted elective with departmental permission.
 Qualified seniors may, with an advisers permission, substitute
 appropriate 500- level courses.*

Capstone Experience

At the conclusion of the program, the students will submit a portfolio of three papers/projects/performance which the student believes are representative of his/her best work produced for the major. By the middle of the student's final semester, he/she will consult with his/her adviser about the materials to be submitted and the date that they are due. All materials must be submitted at least on month prior to the close of the semester in question. This portfolio will be evaluated by a committee composed of members of the English Department's Children's Literature faculty and Drama/Theatre for the Young faculty from the Department of Communication and Theatre Arts. Portfolios will be stored in a file cabinet in Pray-Harrold 318. Students whose portfolios are found to be deficient will be asked to make up that deficiency and submit new materials.

Minor Requirements20 hours

University Elective Courses25 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Electronic Media and Film Studies Major

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....30-34 hours

Required Courses 11 hours

CTAT130 Introduction to Electronic Media (3 hrs)
 CTAT131 Introduction to Audio Production and Direction (2 hrs)
 CTAT132 Introduction to Video Production and Direction (2 hrs)

One course from the following:

CTAT145 Introduction to Film Appreciation (3 hrs)
 CTAT236 History and Criticism of Radio and
 Television (3 hrs)

One course from the following

CTAA165 Television Laboratory (1 hr)
 CTAA169 Radio Station WQBR (1 hr)

Restricted Elective Courses 16-18 hours

Production Courses.....6 hours

Six hours from the following, at least three hours must
 be at the 300- or 400-level:

CTAT231 Audio Recording Techniques (3 hrs)
 CTAT241 Radio-Television Announcing (3 hrs)
 CTAT331 Intermediate Radio Production and
 Direction (3 hrs)
 CTAT332 Intermediate Television Production and
 Direction (3 hrs)
 CTAT333 Fundamentals of Electronic
 Moviemaking (3 hrs)
 CTAT341 Radio-Television-Film Dramatic
 Performance (3 hrs)
 CTAT431 Advanced Radio Production and
 Direction (3 hrs)
 CTAT432 Advanced Television Production and
 Direction (3 hrs)
 CTAT433 Advanced Electronic
 Moviemaking (3 hrs)

Writing Courses.....3 hours

Three hours from the following:

CTAT334 Radio-Television News (3 hrs)
 CTAT344 Continuity Writing for
 Electronic Media (3 hrs)
 CTAT444 Dramatic Scriptwriting for
 Visual Media (3 hrs)

Theory Courses6 hours

Six hours from the following, at least three hours must
 be at the 400-level:

CTAT145 Introduction to Film Appreciation (3 hrs)
 CTAT236 History and Criticism of Radio and
 Television (3 hrs)
 CTAT245 Survey of American Cinema (3 hrs)
 CTAT335 Studies in Film (3 hrs)
 CTAT336 Studies in Electronic Media (3 hrs)
 CTAT345 American Film Genres (3 hrs)
 CTAT445 Film Theory and Criticism (3 hrs)
 CTAT446 Contemporary Problems in Electronic
 Media (3 hrs)
 CTAT447 Radio-Television Station
 Management (3 hrs)
 CTAT479 Special Topics (must be approved by
 adviser) (3 hrs)

Internship or Cooperative Education..... 1-3 hours

CTAT387/388/389 Cooperative Education in
 Radio-TV-Film (1/2/3 hrs)
 CTAT487/488/489 Internship in Radio-TV- Film (1/2/3 hrs)

Elective Courses..... 3-5 hours

Three hours from electronic media and film studies
 and the remaining journalism courses and hours from
 communication and theatre arts excluding CTAS124
 Fundamentals of Speech.

Minor Requirements20 hours

University Elective Courses30-31 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Electronic Media and Film Studies Major with a Concentration in Film Studies

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Courses 13 hours

- CTAT130 Introduction to Electronic Media (3 hrs)
- CTAT131 Introduction to Audio Production and Direction (2 hrs)
- CTAT132 Introduction to Video Production and Direction (2 hrs)
- CTAT145 Introduction to Film Appreciation (3 hrs)
- CTAT445 Film Theory and Criticism (3 hrs)

Restricted Elective Courses 12 hours

- Production Courses 3 hours
 - CTAT333 Fundamentals of Electronic Moviemaking (3 hrs)
- Writing Courses..... 3 hours
 - CTAT444 Dramatic Script writing for Visual Media (3 hrs)

Theory Courses 6 hours

- Six hours from the following:*
- CTAT245 A Survey of American Cinema (3 hrs)
 - CTAT335 Studies in Film (3 hrs)
 - CTAT345 American Film Genres (3 hrs)

Internship or Cooperative Education..... 1-3 hours

- CTAT387/388/389 Cooperative Education in Radio-TV-Film (1/2/3 hrs)
- CTAT487/488/489 Internship in Radio-TV- Film (1/2/3 hrs)
- CTAT497/498/499 Independent Study (1/2/3 hrs)

Elective Courses 4-2 hours

Elective courses may be taken in electronic media and film studies or courses in other departments, selected in consultation with an adviser.

Minor Requirements20 hours

University Elective Courses34 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Theatre Arts Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Foundation Courses 15 hours

- CTAA167 Theatre Practice (1 hr)
- CTAA267/367/467 Theatre Practice (1 hr)
- CTAR150 Introduction to Theatre (3 hrs)
- CTAR152 Technical Theatre: Scenery and Lighting (2 hrs)
- CTAR153 Technical Theatre: Costume and Makeup (2 hrs)
- CTAR155 Producing Theatre (3 hrs)
- CTAR158 Fundamentals of Acting (3 hrs)

Production Concentration Courses 6 hours

- CTAR355 Play Direction (3 hrs)
- One course from the following:*
 - CTAR322 Theatre for the Young (3 hrs)
 - CTAR351 Scene Design (3 hrs)
 - CTAR358 Characterization (3 hrs)
 - CTAR360 Dramatic Composition (3 hrs)
 - CTAR363 Stage Costume: History & Theory (3 hrs)
 - CTAR364 Stage Costume: Design Construction (3 hrs)

Theory Courses..... 6 hours

- CTAR450 History of the Theatre to 1642 (3 hrs)
- CTAR451 History of the Theatre: 1642 to the Present (3 hrs)

Advanced Production Courses 2-3 hours

- One course from the following:*
- CTAR458 Acting/Directing/Production Intensive I (3 hrs)
 - CTAR459 Acting/Directing/Production Intensive (2 hrs)

Capstone Course 2 hours

- CTAR496 Senior Seminar (2 hrs)

Restricted Elective Courses 4-5 hours

- Choose from any theatre (CTAR) and/or performance (CTAO) course excluding CTAR106.

Minor Requirements20 hours

University Elective Courses28 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Interdisciplinary Major in Public Relations

Admission to the program will require a 2.8 GPA, which must be maintained in the major as well as in the minor selected. Admission is granted by the Department of English Language and Literature. Courses from both the Department of English Language and Literature and the Department of Communication and Theatre Arts are offered as requirements and restricted elective courses.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....48 hours

Required Fundamental Courses.....21 hours

- ART165 Graphic Design for Non-majors (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)
- CTAT141 Audio and Video Production for Non-Majors (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL312 Introduction to Public Relations (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)

- One course from the following:*
- CTAC224 Public Speaking (3 hrs)
 - CTAC350 Persuasion (3 hrs)

Required Advanced Courses 18 hours

- CTAC475 Research in Speech Communication (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL408 Case Studies in Public Relations (3 hrs)
- One course from the following:*
 - JRNL487 Cooperative Education in Journalism/Public Relations (3 hrs)
 - JRNL490 Internship in Journalism/Public Relations (3 hrs)

- One course from the following:*
- CTAT334 Radio-Television News (3 hrs)
 - CTAT344 Continuity Writing for Electronic Media (3 hrs)

One course from the following:
 CTAC354 Organizational Communication (3 hrs)
 CTAC357 Interviewing as Communication (3 hrs)

Restricted Elective Courses 9 hours

CMT204 Photographic Communication (3 hrs)
 CMT436 Electronic Publishing Technology (3 hrs)
 ENGL323 Writing in the Professional World (3 hrs)
 ENGL444 Writing for the World Wide Web (3 hrs)
 JRNL307 Copy Editing (3 hrs)
 JRNL311 Newspaper Layout and Design (3 hrs)
 JRNL455 Journalism and the Law (3 hrs)

One course from the following:
 CTAC224 Public Speaking (3 hrs)
 CTAC350 Persuasion (3 hrs)

One course from the following:
 CTAC227 Interpersonal Communication (3 hrs)
 CTAC359 Small Group Communication (3 hrs)
 CTAT241 Radio-Television-Film Announcing (3 hrs)

One course from the following:
 CTAT334 Radio-Television News (3 hrs)
 CTAT344 Continuity Writing for
 Radio-Television- Film (3 hrs)

Maximum of six-hours from the following:
 CTAC387/388/389 Cooperative Education in
 Communication (1/2/3 hrs)
 CTAC487/488/489 Internship in Communication (1/2/3 hrs)
 JRNL387/487 Cooperative Education in Journalism/
 Public Relations (3 hrs)
 JRNL488/489/490 Internship in Journalism/Public
 Relations (1/2/3 hrs)

Minor Requirements20 hours
 University Elective Courses 16 hours
 Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Communication and Theatre Arts Teaching Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in speech, certification code BD, and, depending on the minor selected, an additional endorsement. The Michigan Test for Teacher Certification (MTTC) covering this field is #04, "Speech." At least nine credit hours must be taken at the 300-400 level.

General Education Requirements.....40 hours
 See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Required Courses 3 hours
 CTAS124 Fundamentals of Speech (3 hrs)

Restricted Elective Courses15 hours
 At least three hours in five of the six following concentrations:
 I. Communication
 CTAC224 Public Speaking (3 hrs)
 CTAC225 Listening Behavior (3 hrs)
 CTAC227 Interpersonal Communication (3 hrs)
 CTAC274 Intercultural Communication (3 hrs)

CTAC350 Persuasion (3 hrs)
 CTAC356 Argumentation and Debate (3 hrs)
 CTAC359 Small Group Communication (3 hrs)

II. Interpretation/performance studies
 CTAO210 Interpretative Reading (3 hrs)

III. Voice and speech development
 CTAO205 Voice and Articulation (3 hrs)

IV. Telecommunications and film
 CTAT141 Audio and Video Production for
 Non-Majors (3 hrs)
 CTAT145 Introduction to Film Appreciation (3 hrs)

V. Theatre arts
 CTAR151 African American Theatre: An
 Introduction (3 hrs)
 CTAR152 Technical Theatre: Scenery and
 Lighting (3 hrs)
 CTAR153 Technical Theatre: Costume and
 Makeup (3 hrs)
 CTAR155 Producing Theatre (3 hrs)
 CTAR158 Fundamentals of Acting (3 hrs)
 CTAR450 History of the Theatre to 1642 (3 hrs)
 CTAR451 History of the Theatre: 1642 to the
 Present (3 hrs)

VI. Educational drama
 CTAR222 Drama & Play in Human
 Experience (3 hrs)
 CTAR322 Theatre for the Young (3 hrs)
 CTAR323 Improvising and Role Play (3 hrs)
 CTAR327 Plays for the Young (3 hrs)
 CTAR429 History and Theory of Developmental
 Drama/Theatre (3 hrs)

Concentration.....12 hours
 Select either a concentration in communications or theatre arts in consultation with an adviser.

Department Elective Courses6 hours
 Select from any courses in areas outside the concentration.

Professional Studies39 hours

Pre-admission phase: The Learner
 and the Community8 hours
 EDPS322 Human Development and Learning (4 hrs)
 FETE201 Field Experience I (1 hr)
 SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment
 and the Social Context..... 10 hours
 CURR305 Curriculum and Methods: Secondary (3 hrs)
 EDPS340 Introduction to Assessment and
 Evaluation (3 hrs)
 FETE302 Field Experience II: Secondary (1 hr)
 SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,
 Literacy and Technology 9 hours
 CTAC307 The Teaching of Speech (3 hrs)
 EDMT330 Instructional Applications of Media
 and Technology (2 hrs)
 FETE402 Field Experience III: Secondary (1 hr)
 RDNG311 Teaching Reading in the Secondary
 School (3 hrs)

Phase III: Capstone Experience12 hours
 EDUC492 Student Teaching (12 hrs)

Minor Requirements20-24 hours
 Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs. English Teaching minor strongly recommended.

Program Total 135-139 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Communication Minor

Required Courses 21 hours

- CTAC227 Interpersonal Communication (3 hrs)
- CTAC354 Organizational Communication (3 hrs)
- CTAC359 Small Group Communication (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)

One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC350 Persuasion (3 hrs)

One course from the following:

- CTAC274 Intercultural Communication (3 hrs)
- CTAC275 Interracial/Interethnic Communication (3 hrs)

One course from the following:

- 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)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Comprehensive Minor in Communication and Theatre Arts

Required Courses 3 hours

- CTAS124 Fundamentals of Speech (3 hrs)

Restricted Elective Courses 12 hours

At least three hours in four of the six areas of concentration (communication, interpretation/performance studies, voice and speech development, telecommunications and film and theatre arts and educational drama). See courses previously listed in comprehensive major in communication and theatre arts.

Concentration Courses 6-9 hours

Six to nine hours in one area of concentration.

Minor Total 21-24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Drama/Theatre for the Young Minor

The undergraduate minor in drama/theatre for the young is designed to serve students wishing to prepare for a variety of careers — some already existing, others emerging — involving work with and for the young through drama and communication. The minor is useful in conjunction with many other minors and majors including elementary and secondary education, special education, language and literature, history and social studies, art, music, dance, social work, sociology, psychology, recreation, business management, counseling, library science, home economics, communication and theatre arts, family and child service and gerontology.

It provides a strong base and, at the same time, flexibility is ensured through freedom in choosing from a wide range of electives.

Required Courses 15 hours

- CTAR222 Drama and Play in Human Experience (3 hrs)
- CTAR322 Theatre for the Young (3 hrs)
- CTAR323 Improvising and Role-Play (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)

Elective Courses 5 hours

Five hours from the following:

- CTAA168/268/368/468 Interpretation (1/1/1/1 hr)
- CTAR326 Drama/Theatre for Persons with Disabilities (2 hrs)
- CTAR327 Plays for the Young (3 hrs)
- CTAR329 Performing Theatre for the Young (3 hrs)
- CTAR377/378/379 Special Topics (1/2/3 hrs)
- CTAR429 History and Theory of Developmental Drama/Theatre (3 hrs)
- CTAR497/498/499 Independent Study (1/2/3 hrs)
- †CTAR504 Oral Interpretation of Literature and Language with the Young (2 hrs)
- †CTAR522 TIE: Theatre-in-Education (2 hrs)
- †CTAR523 Puppetry: Catalyst in Human Development (3 hrs)
- †CTAR524 Developmental Drama/Theatre with Handicapped Persons (2 hrs)
- †CTAR525 Developmental Drama/Theatre in Recreational Settings (2 hrs)
- †CTAR528 Developmental Drama/Theatre in Religion (2 hrs)
- †CTAR565 Studies in Drama/Theatre for the Young (2 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)
- Any course in dramatic literature
- Any communication or theatre arts course

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.
†All 500-level courses are available for undergraduate credit to qualified seniors.

Drama/Theatre for the Young Minor

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code BD. The Michigan Test for Teacher Certification (MTTC) covering this field is #04, "Speech."

Required Courses 20 hours

- CTAR222 Drama and Play in Human Experience (3 hrs)
- CTAR322 Theatre for the Young (3 hrs)
- CTAR323 Improvising and Role-Play (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)

Five hours from the following:

- CTAA168/268/368/468 Interpretation (1/1/1/1 hr)
- CTAR326 Drama/Theatre for Persons with Disabilities (2 hrs)
- CTAR327 Plays for the Young (3 hrs)
- CTAR377/378/379 Special Topics (1/2/3 hrs)
- CTAR429 History and Theory of Developmental Drama/Theatre (3 hrs)
- CTAR477/478/479 Special Topics: Touring to Young Audiences (1/2/3 hrs)
- †CTAR504 Oral Interpretation of Literature and Language with the Young (2 hrs)
- †CTAR522 TIE: Theatre-in-Education (2 hrs)
- †CTAR523 Puppetry: Catalyst in Human Development (3 hrs)
- †CTAR524 Developmental Drama/Theatre for Persons with Disabilities (2 hrs)
- †CTAR525 Developmental Drama/Theatre in Recreational Settings (2 hrs)
- †CTAR528 Developmental Drama/Theatre in Religion (2 hrs)

- †CTAR565 Studies in Drama/Theatre for the Young (2 hrs)
- CTAR497/498/499 Independent Study (1/2/3 hrs)
- ‡LITR207 Introduction to Children's Literature (3 hrs)
- Any course in dramatic literature
- Any communication course
- Any theatre arts course

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.
 †All 500-level courses are available for undergraduate credit to qualified seniors.
 ‡Elementary education professional requirement.

Electronic Media and Film Studies Minor

Required Courses 7 hours
 CTAT130 Introduction to Electronic Media (3 hrs)
 CTAT131 Introduction to Audio Production and Direction (2 hrs)
 CTAT132 Introduction to Video Production and Direction (2 hrs)

Restricted Elective Courses 13 hours
One course from the following:
 CTAT145 Introduction to Film Appreciation (3 hrs)
 CTAT236 History and Criticism of Radio and Television (3 hrs)

One course from the following:
 CTAA165 Television Laboratory (1 hr)
 CTAA169 Radio Station WQBR (1 hr)

Three credits from each group of the area courses listed under the electronic media and film studies major (production, writing and theory).

Elective Courses 4 hours
Three hours from electronic media and film studies and the remaining journalism courses and hours from communication and theatre arts excluding CTAS124 Fundamentals of Speech.

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Musical Theatre Minor

Required Courses 6 hours
Four hours of applied music-voice and two hours of ensemble performance voice courses.

Restricted Elective Courses21 hours
 Theatre Arts 8 hours

Eight hours from the following:
 CTAR155 Producing Theatre (3 hrs)
 CTAR258 Movement for Actors (3 hrs)
 CTAR457 Audition (2 hrs)
 CTAR461 Musical Theatre Acting (2 hrs)
 CTAR462 Directors on Directing (2 hrs)
 CTAR463 The American Musical Stage (3 hrs)

Dance 7 hours
Seven hours from the following:
 DANC100 Ballet (2 hr)
 DANC101 Jazz I (2 hr)
 DANC102 Modern Dance Fundamentals (3 hr)
 DANC103 Tap Dancing (2 hr)
 DANC201 Jazz II (2 hr)
 DANC202 Modern Dance II (2 hr)

Music6 hours

Six hours from the following:
 MUSC101 Music Theory I (3 hrs)
 MUSC305 Keyboard Skills (2 hrs)
 MUSC326 Conducting (2 hrs)

Minor Total27 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Theatre Arts Minor

Required Courses 18 hours

CTAA167 Theatre Practice (1 hr)
 CTAR150 Introduction to Theatre (3 hrs)
(may be bypassed by examination or interview, for no credit)
 CTAR152 Technical Theatre: Scenery and Lighting (2 hrs)
 CTAR155 Producing Theatre (3 hrs)
 CTAR158 Fundamentals of Acting (3 hrs)
 CTAR355 Play Direction (3 hrs)

One course from the following:
 CTAR450 History of the Theatre to 1642 (3 hrs)
 CTAR451 History of the Theatre: 1642 to the Present (3 hrs)

Elective Courses 2-6 hours
Select courses beyond the 100-level in theatre arts or in other departmental areas specified under the major.

Minor Total 20-24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Minor in Communication and Theatre Arts Teaching

Secondary, K-12 and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in speech, certification code BD. The Michigan Test for Teacher Certification (MTTC) covering this field is #04, "Speech." At least six hours must be taken at the 300-400 level.

Required Courses21 hours

CTAS124 Fundamentals of Speech (3 hrs)
At least three credits in four of the six areas of concentration (communication, interpretation/performance studies, voice development, telecommunications and film and theatre arts and educational drama).
Six additional hours from speech communication or theatre arts

Minor Total21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Computer Science

Address: 511 Pray-Harold
Phone: 734.487.1063
E-mail: computer.science@emich.edu
Web site: www.emich.edu/compsci

See page 272 for course descriptions.

The Department of Computer Science offers professional foundations-based programs designed to facilitate initial placement and continuing growth in this rapidly changing and expanding field. Programs include an applied computer science major, a minor, a curriculum in computer science and a computer science education major and minor leading to secondary or K-12 teacher certification. Six computer laboratories house about 200 desktop computers, computer clusters, servers and special purpose computers. These facilities provide hardware and software support for teaching and a broad range of class assignments and student projects.

Students completing the curriculum are uniquely equipped to pursue advanced graduate degrees. Both the applied computer science major and the computer science curriculum offer a mix of practice and theory that prepare students for graduate study and for career employment in computer science fields such as systems programming and analysis, software development and maintenance as well as applications programming. Strong industrial ties and an active cooperative education program provide both practical learning experience and entry into cutting edge job markets such as network administration, database design and administration and software engineering. Part-time on-campus employment opportunities also encourage hands-on learning.

The computer science minor provides students in mathematics, the physical and social sciences and other fields with practical tools for applying current computer technology to their major areas. Independent projects and special-topics classes provide professional-level training and experience for students interested in the latest technological advances.

Fully accredited by the Michigan Department of Education, the computer science education major and minor both meet the rigorous standards of the International Society for Technology in Education (ISTE). Academic excellence of these programs is attested by outstanding student performance on statewide content examinations and by the postgraduate employment rate.

Graduate programs under the auspices of the Department of Computer Science are the master of science in computer science, the graduate secondary teacher certification endorsement program, the graduate certificate in artificial intelligence and the double master's degree program with the Fachhochschule Karlsruhe, Germany. The department cooperates with the departments of Biology, Management and Mathematics in offering a graduate certificate and a master of science in bioinformatics. The department also cooperates with the Department of Mathematics in offering a master of arts in mathematics with a concentration in computer science. See the graduate catalog for program descriptions.

Permission for course substitutions, for other modifications to any computer science curriculum, major or minor, for credit-by-examination and for approval of transfers of computer science credit must first be obtained from the undergraduate adviser.

Graduate courses and a program leading to an endorsement in computer science for secondary school teachers certified in other fields are described in the graduate catalog.

Curriculum in Computer Science

The curriculum offers graduates an extensive background in the major fields of computer science. Graduates will have received the highest degree

of preparation for either the pursuit of a graduate degree in the field, or for a career in the computer industry.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Comprehensive Computer Science Curriculum Major.....77-81 hours
Required Courses39 hours

- COSC111 Introduction to Programming (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- COSC221 Computer Organization I (3 hrs)
- COSC231 Internet-based Computing (3 hrs)
- COSC311 Algorithms and Data Structures (3 hrs)
- COSC314 Computational Discrete Structures (3 hrs)
- COSC321 Computer Organization II (3 hrs)
- COSC341 Programming Languages (3 hrs)
- COSC423 Computer Operating Systems (3 hrs)
- COSC439 Computing Network Principles (3 hrs)
- COSC444 Foundations of Automata and Languages (3 hrs)
- COSC471 Database Principles (3 hrs)
- COSC481 Software Engineering and Senior Project (3 hrs)

Elective Courses 6 hours
Any 400-level computer science courses not already taken or select two from the list of courses below:

- COSC315 Symbolic Computing (3 hrs)
- COSC405 Switching Theory (3 hrs)
- COSC421 Systems Programming (3 hrs)
- COSC422 Introduction to Microprocessors (3 hrs)
- COSC436 Web Programming (3 hrs)
- COSC445 Compiler Construction (3 hrs)
- COSC456 Microcomputer Graphics (3 hrs)
- COSC461 Heuristic Programming (3 hrs)

Mathematics Requirements..... 17-18 hours

- MATH120 Calculus I (4 hrs)
- MATH122 Linear Algebra (3 hrs)
- MATH205 Mathematical Structures for Computer Science (4 hrs)
- MATH360 Statistical Methods (3 hrs)

One course from the following:

- MATH121 Calculus II (4 hrs)

Any 200- or higher level course offered by the Mathematics Department not oriented specifically toward a teaching specialization (3 hrs)

Science Requirements..... 15-18 hours

Twelve total credits of coursework from two of the following departments: Biology, Chemistry, Geology or Physics. These courses must be intended for majors in their respective disciplines. The courses must include one of the following options:

Option I: Biology 10 hours

- BIOL110 Introductory Biology I (5 hrs)

- BIOL120 Introductory Biology II (5 hrs)

Option II: Chemistry 8 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)

One course from the following:

- CHEM123/124 General Chemistry II with lab (4 hrs)

- CHEM125/126 Honors General Chemistry II with lab (4 hrs)

Option III: Geology 8 hours

- ESSC110 The Dynamic Earth System (4 hrs)

- ESSC111 The Earth System Through Time (4 hrs)

Option IV: Physics 10 hours

- PHY223 Mechanics and Sound (5 hrs)

- PHY224 Electricity and Light (5 hrs)

An additional course from the Biology, Chemistry, Physics or Psychology department. This course *need not* be intended for majors in that discipline (3-5 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses	3-7 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Applied Computer Science Major

Successful completion of this major satisfies one of the requirements for graduation with a bachelor of science or bachelor of arts degree with a major in computer science. Graduates will be able to pursue advanced graduate degrees. The applied computer science major offers a mix of practice and theory that prepares students for career employment in computer science fields such as systems programming and analysis, software development and maintenance, as well as applications programming.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Additional Requirements.....	11 hours
MATH120 Calculus I (4 hrs)	
MATH205 Mathematical Structures for Computer Science (4 hrs)	
MATH360 Statistical Methods (3 hrs)	

Major Requirements.....	36 hours
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Required Courses

- COSC111 Introduction to Programming (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- COSC221 Computer Organization I (3 hrs)
- COSC231 Internet-based Computing (3 hrs)
- COSC311 Algorithms and Data Structures (3 hrs)
- COSC314 Computational Discrete Structures (3 hrs)
- COSC341 Programming Languages (3 hrs)
- COSC481 Software Engineering and Senior Project (3 hrs)

Restricted Elective Courses

- Four courses from the following:*
- COSC315 Symbolic Computing (3 hrs)
 - COSC321 Computer Organization II (3 hrs)
 - 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)

Minor Requirements	20 hours
University Elective Courses	17 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Computer Science Education Major

Secondary Teacher Certification

Successful completion of this program, in conjunction with other teacher education requirements, qualifies students for recommendation for the Michi-

gan Department of Education Secondary Provisional Certificate endorsed in computer science, certification code NR, and, an additional endorsement depending on the minor selected. The Michigan Test for Teacher Certification (MTTC) covering this field is #50, "Computer Science."

Students must be accepted into the College of Education before enrolling in COSC342 Programming Languages for Educators, COSC303 Applications in Computer Science and COSC306 Methods of Teaching Computer Science in the Secondary Schools.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Additional Requirements.....	4 hours
MATH205 Mathematical Structures for Computer Science (4 hrs)	

Major Requirements.....	30 hours
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Required Courses

- COSC101 Computer Science Concepts and Practical Applications (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- COSC221 Computer Organization I (3 hrs)
- COSC303 Applications in Computer Science (3 hrs)
- COSC311 Algorithms and Data Structures (3 hrs)
- COSC314 Computational Discrete Structures (3 hrs)
- COSC342 Programming Languages for Educators (3 hrs)
- COSC403 Seminar and Project Design for Educators (3 hrs)

Restricted Electives.....

- One course from the following:*
- COSC105 Everyday Computing and Social Responsibility (3 hrs)
 - PLSC382 Politics and the 21st Century (3 hrs)
 - SOCL462 Complex Organizations (3 hrs)
 - STS150 Understanding Technology (3 hrs)
- Others options by department permission*

Professional Education Requirements.....	39 hours
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Pre-Admission Phase: The Learner

- and the Community
- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

- and the Social Context.....
- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

- Literacy and Technology
- CTAC307 The Teaching of Speech (3 hrs)
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience

- EDUC492 Student Teaching (12 hrs)

Minor Requirements	20-25 hours
<i>Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.</i>	

Program Total	133-138 hours
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Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Computer Science Minor

Successful completion of this minor satisfies one of the requirements for graduation with a bachelor of science or a bachelor of arts degree. Students pursuing majors in other fields such as mathematics, the physical and social sciences, the arts or business will learn the practical tools for applying current computer technology to their major areas of study.

Required Courses15 hours
 COSC111 Introduction to Programming (3 hrs)
 COSC211 Programming Data Structures (3 hrs)
 COSC221 Computer Organization I (3 hrs)
 COSC231 Internet-based Computing (3 hrs)
 COSC311 Algorithms and Data Structures (3 hrs)

Restricted Elective Courses6 hours
Two courses from the following:
 COSC314 Computational Discrete Structures (3 hrs)
 COSC315 Symbolic Computing (3 hrs)
 COSC321 Computer Organization II (3 hrs)
 COSC341 Programming Languages (3 hrs)
 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)

Minor Total21 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Computer Science Education Minor

Secondary, K-12 and Special
 Education-Secondary Teacher Certification

Successful completion of this program, in conjunction with other teacher education requirements, qualifies students for recommendation for the Michigan Department of Education Secondary Provisional Certificate endorsed in computer science, certification code NR and an additional endorsement dependent on the major or minor selected. The Michigan Test for Teacher Certification (MTTC) covering this field is #50, "Computer Science."

Students must be accepted into the College of Education before enrolling in COSC342 Programming Languages for Educators, COSC303 Applications in Computer Science and COSC306 Methods of Teaching Computer Science in the Secondary Schools.

Additional Requirements3 hrs
 COSC306 Methods of Teaching Computer Science in the
 Secondary Schools (3 hrs)

Required Courses21 hours
 COSC101 Computer Science Concepts and Practical Applications (3 hrs)
 COSC111 Introduction to Programming (3 hrs)
 COSC211 Programming Data Structures (3 hrs)
 COSC221 Computer Organization I (3 hrs)
 COSC303 Applications in Computer Science (3 hrs)
 COSC311 Algorithms and Data Structures (3 hrs)
 COSC342 Programming Languages for Educators (3 hrs)

Minor Total24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Department of Economics

Address: 703-A Pray-Harold
 Phone: 734.487.3395
 E-mail: raouf.hanna@emich.edu
 Web site: www.emich.edu/public/economics/homepage.htm

See page 287 for course descriptions.

The Department of Economics offers majors and minors in economics, with diversified areas of specialization. A major in Actuarial Science and Economics is offered in a joint program with the Department of Mathematics. The department also participates in other University programs such as Language and International Trade, International Business, Social Studies offered in the Department of History and Philosophy, the minor in Conservation and Resource Use in the Department of Biology and the Women's and Gender Studies Program.

Students have access to personal computers and software through the department's own statistical laboratory and through facilities available at various locations on campus.

The department presents five annual student awards: the Murg Award for outstanding service to the Department of Economics; the Gockerman Award for an outstanding paper on a subject related to economics; two Hanna Awards for outstanding papers in econometrics; and the Student Achievement Award for the highest grade point average in economics.

The department sponsors Eta chapter of Omicron Delta Epsilon honor society in economics, established in 1975 to recognize students who demonstrate ability in the study of economics at an institute where sound economics programs are offered. The Economics Club sponsors economic and social events for students interested in economics as a major or minor or complementary field.

Graduate study leads to a master's degree in three different programs: master of arts in economics; master of arts in applied economics; and master of arts in trade and development. For more information consult the graduate catalog.

Assessment: As a condition for graduation, all Economics majors are required to complete an exit interview and assessment survey on their experience in the Economics program. These are to be completed in a meeting with the undergraduate adviser during the final semester before graduation.

Advising Information
 For departmental advising, please see:

David Crary
 Address: 703-G Pray Harrold
 Phone: 734.487.0001
 E-mail: dcrary@emich.edu

Bachelor of Business Administration in Economics

The bachelor of business administration in economics degree is available to those admitted to the College of Business (see page 164). The program is designed to provide professional training in economics applicable to business management for students contemplating administrative or research careers in business or government. This program provides an additional career

program option for students by permitting them to major in economics while taking the same foundation courses required of all business students.

Students enrolling in this program are required to follow the business administration curriculum in addition to fulfilling the 24 credit hours in economics.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....69 hours
Business and Business Administration Core Courses.....36 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- COB200 Introduction to Business (3 hrs)
- DS265 Business Statistics I (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- IS215 End-User Computing (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- MGMT490 Business Policy (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- POM374 Introduction to Production/Operations Management (3 hrs)

Required Courses18 hours

- One course from the following:*
- MATH118 Linear Models and Probability (3 hrs)
 - MATH122 Elementary Linear Algebra (3 hrs)
 - ECON201 Principles of Macroeconomics (3 hrs)
 - ECON202 Principles of Microeconomics (3 hrs)
 - ECON301 Intermediate Macroeconomic Analysis (3 hrs)
 - ECON302 Intermediate Microeconomic Analysis (3 hrs)
 - ECON415 Introduction to Econometrics (3 hrs)

Restricted Elective Courses15 hours

Although any 15 credit hours of 300-level or above electives in economics will complete the requirements for the major, students should select courses most closely related to business applications. Students selecting this economics major are encouraged to include at least one 400-level course offered in the College of Business as an elective.

Minor Requirements 0 hours
No minor is required.

University Elective Courses15 hours

Program Total.....124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Actuarial Science and Economics Major

Actuarial science and economics is a joint program of the Mathematics and Economics departments. In addition to following a prescribed series of courses, students are expected to pass the first two actuarial examinations. The examinations are sponsored by leading actuarial societies and administered in numerous U.S. locations. MATH372 and MATH472 are designed to prepare students for these examinations.

All majors must meet with the undergraduate advising coordinator in the Department of Mathematics to fill out a program sheet before graduation. At least 15 credit hours in the program, at the 300-level or above, must be taken at Eastern Michigan University.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....62 hours
Required Courses 12 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- One course from the following:*
- COSC145 Introduction to FORTRAN Programming (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- COSC237 Computer Programming and Numeric Methods (3 hrs)

- One course from the following:*
- ECON361 Corporation Finance (3 hrs)
 - FIN350 Principles of Finance (3 hrs)

Required Mathematics Courses26 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH370 Probability and Statistics I (4 hrs)
- MATH372 Problems in Actuarial Studies I (2 hrs)
- MATH471 Probability and Statistics II (3 hrs)
- MATH472 Problems in Actuarial Studies II (2 hrs)

Required Economic Courses.....18 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- ECON301 Intermediate Macroeconomic Analysis (3 hrs)
- ECON302 Intermediate Microeconomic Analysis (3 hrs)
- ECON405 Economic Analysis for Business (3 hrs)
- ECON415 Introduction to Econometrics (3 hrs)

Restricted Elective Courses6 hours

- Any combination of electives from:*
- Courses at the 300-level or above in mathematics
 - ECON340 Money and Banking (3 hrs)
 - ECON445 Economic Fluctuation and Forecasting (3 hrs)
 - ECON455 Cost-benefit Analysis (3 hrs)

Minor Requirements0 hours
No minor is required.

University Elective Courses22 hours

Program Total.....124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Economics Major

The Economics major in the College of Arts and Sciences is designed to prepare students for administrative or research careers in business, finance, government and social service agencies. The Economics major is also an excellent preparation for students planning to attend Law School. Students in this major are encouraged to consider a minor or second major in Finance, General Business (or other business field), Mathematics, Political Science, or Philosophy to match their specific career goal. Students planning to pursue graduate studies in Economics are strongly encouraged to complete a minor in Mathematics.

General Education Requirements40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements.....3-4 hours

- One course from the following:*
- MATH118 Linear Models and Probability (3 hrs)
 - MATH119 Applied Calculus (3 hrs)
 - MATH120 Calculus I (4 hrs)

Major Requirements.....	30 hours
Required Courses	15 hours
ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
ECON301 Intermediate Macroeconomic Analysis (3 hrs)	
ECON302 Intermediate Microeconomic Analysis (3 hrs)	
<i>One course from the following:</i>	
†ECON310 Economic Statistics (3 hrs)	
ECON415 Introduction to Econometrics (3 hrs)	
Elective Courses	15 hours
<i>Although any 15 credit hours of 300- level or above electives in economics will complete the requirements for the major, students should choose courses related to the career path they wish to pursue. Inquire at the Department of Economics regarding suggested concentrations, suggested career paths and course selection.</i>	
Minor Requirements	20 hours
University Elective Courses	30-31 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Economics Education Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in economics, certification code CA and, depending on the minor selected, endorsement in geography (CB), history (CC), political science (CD), psychology (CE), sociology (CF), or social studies (RX). The Michigan Test for Teacher Certification (MTTC) covering this field is #07, "Economics."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements.....6 hours
One course from the following:
GEOG107 Introduction to Geography (3 hrs)
GEOG110 World Regions (3 hrs)
One course from the following:
PLSC112 American Government (3 hrs)
PLSC113 American Government Honors (3 hrs)

Major Requirements.....30 hours
Required Courses

ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
ECON301 Intermediate Macroeconomic Analysis (3 hrs)	
ECON302 Intermediate Microeconomic Analysis (3 hrs)	
ECON375 Economic History of the United States (3 hrs)	
<i>One course from the following:</i>	
ECON310 Economic Statistics (3 hrs)	
ECON415 Introduction to Econometrics (3 hrs)	

Elective Courses

12 hours of electives in economics including at least two courses from the following:	
ECON300 Contemporary Economic Issues (3 hrs)	
ECON303 Consumer Economics (3 hrs)	
ECON327 Economics of Poverty, Inequality and Discrimination (3 hrs)	
ECON370 Comparative Economic Systems (3 hrs)	

ECON385 Economic Development (3 hrs)	
ECON480 International Economics (3 hrs)	
Professional Studies	39 hours
Pre-Admission Phase: The Learner and the Community.....	8 hours
EDPS322 Human Development and Learning (4 hrs)	
FETE201 Field Experience I (1 hr)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
<i>The following courses require formal admission to the teacher education program:</i>	
Phase I: Curriculum, Assessment and the Social Context.....	10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE302 Field Experience II: Secondary (1 hr)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Content Methods, Literacy and Technology	9 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
HIST481 The Teaching of Social Studies (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience	12 hours
EDUC492 Student Teaching (12 hrs)	

Minor Requirements

20-25 hours	
<i>Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.</i>	

Program Total

135-140 hours	
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Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Economics Minor

An Economics minor provides a useful combination with majors in Business, Mathematics, Political Science, Pre-Law, Philosophy and related fields.

Required Courses

ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	

Elective Courses

14 hours	
Fourteen hours from any 300-level and above economics courses, ECON301 and ECON302 are highly recommended.	

Minor Total

20 hours	
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Note:
All minors must have at least six hours of course work at the 300-level or above.

Economics Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in economics, certification code CA. The Michigan Test for Teacher Certification (MTTC) covering this field is #07, "Economics."

Required Courses	9 hours
ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
ECON375 Economic History of the United States (3 hrs)	
Restricted Elective Courses	11 hours
<i>†Eleven hours of electives in economics including at least two courses from the following:</i>	
ECON300 Contemporary Economic Issues (3 hrs)	
ECON303 Consumer Economics (3 hrs)	
ECON327 Economics of Poverty, Inequality and Discrimination (3 hrs)	
ECON370 Comparative Economics Systems (3 hrs)	
ECON385 Economic Development (3 hrs)	
ECON480 International Economics (3 hrs)	
Minor Total	20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
†ECON301 and ECON302 are also recommended.

Department of English Language and Literature

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See pages 276, 291, 319, 321 and 322 for course descriptions.

The programs offered by the Department of English Language and Literature are designed to enhance a student's understanding and skill in literature, English language and composition and written communication. These programs also prepare students for a broad range of careers, especially those that are media-related and require the ability to read carefully, write clearly and understand the complexities of style and structure variations in the language.

Advising is available from faculty advisers whose names and office hours are posted in the English department office.

Special requirements for students seeking admission to the written communication majors include evidence that their GPA is at least 2.5 at the end of the sophomore year.

Students who score above 640 on the verbal part of the SAT or 29 on the English section of the ACT and whose high school GPA was 2.5 or above may choose to enroll in a basic language course in a foreign language (FRNH/GERN/SPNH121, 122, 221, or 222) instead of ENGL121 Composition II: Researching the Public Experience.

Creative Writing Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours
 Required Courses

CRTW201 Introduction to Creative Writing (3 hrs)
CRTW426 Contemporary Forms (3 hrs)

The following courses must be taken twice:

†CRTW335 Creative Writing (3 hrs)
†CRTW422 Writing Workshop (3 hrs)

*ENGL300 Writing About Literature (3 hrs)
LITR360 Recent Trends (3 hrs)

Restricted Electives.....9 hours
Three courses selected from the following:

300-400 level courses in CRTW, LITR, ENGL, JRNL, LING
*ART428 Seminar in 20th Century Art (3 hrs)
*CTAR360 Dramatic Composition (3 hrs)
*PHL460 Philosophy of Language (3 hrs)

Minor Requirements

20 hours

University Elective Courses

31 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
**The interdisciplinary nature of the Creative Writing Major encourages students to minor in areas such as Philosophy, Art and Drama. The PHIL, ART, CTAR courses below are therefore also acceptable restricted electives, but students should be aware that they require prerequisites and are suggested as part of a program involving a minor in the relevant area. Students choosing the Philosophy elective, for instance, should consider designating Philosophy as a minor. Likewise students choosing the Art/Drama elective should consider Art/Drama as a minor.*
†This 3-credit course must be taken twice, with two different topics, to total 6 credit hours.

English Language Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....31 hours
 Required Courses

ENGL324 Principles of Technical Communication (3 hrs)
ENGL328 Writing, Style and Technology (3 hrs)
ENGL417 Writing about Controversies (3 hrs)
LING201 An Introduction to Linguistics (3 hrs)
LING402 Modern English Grammar (3 hrs)

One course from the following:

LING205 English Words (3 hrs)
LING421 The History of the English Language (3 hrs)

One course from the following:

ENGL484 Seminar in Written Communications (3 hrs)
LING497/498/499 Independent Study (1/2/3 hrs)

Restricted Elective Courses

ENGL225 Writing in a Changing World (3 hrs)
ENGL326 Research Writing (3 hrs)
ENGL387/487 Cooperative Education in English (3 hrs)
ENGL424 Technical Writing (3 hrs)
ENGL427 Technical Editing (3 hrs)
ENGL428 Writing Computer Documentation (3 hrs)
JRNL215 News Writing and Reporting (3 hrs)
JRNL306 Feature Writing (3 hrs)
JRNL307 Copy Editing (3 hrs)
JRNL314 Writing for Public Relations (3 hrs)
JRNL423 Magazine Article Writing (3 hrs)
JRNL453 Advanced Reporting (3 hrs)
LING310 African American Language (3 hrs)
LING340 Language and Culture (3 hrs)

Any other LING course approved by the undergraduate adviser

Minor Requirements

20 hours

University Elective Courses

33-34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

English Linguistics Major

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Courses12 hours

- LING201 An Introduction to Linguistics (3 hrs)
- LING401 Introduction to Linguistic Science (3 hrs)
- LING420 Introduction to Phonology (3 hrs)
- LING425 Introduction to Syntax (3 hrs)

Restricted Elective Courses9 hours

Three courses from the following:

- LING205 English Words (3 hrs)
- LING310 African American Language (3 hrs)
- LING322 Languages of the World (3 hrs)
- LING340 Language and Culture (3 hrs)
- LING402 Modern English Grammar (3 hrs)
- LING415 Language and Gender (3 hrs)
- LING421 History of the English Language (3 hrs)
- LING426 Topics in Linguistics (3 hrs)
- LING434 Linguistic Analysis of Literature (3 hrs)
- PHIL460 Philosophy of Language (3 hrs)

Elective Courses9 hours

Three courses from the following:

- ANTH336/SOCL336 Social and Cultural Change (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- CTAC356 Argumentation and Debate (3 hrs)
- ENGL417 Writing About Controversies (3 hrs)
- GEOG360 Cultural Geography (3 hrs)
- LING425 Second Language Acquisition (3 hrs)
- MATH170 Elementary Statistics (3 hrs)
- PHIL281 Symbolic Logic (3 hrs)
- PSY301 Introductory Experimental Psychology (4 hrs)
- SOCL310 Social Stratification (3 hrs)
- Another relevant upper-level course, as approved by the undergraduate adviser for Linguistics
- Any LING course (including 500-level courses) not used as a restricted elective
- Any course in foreign language or in Old or Middle English
- Any upper-level course in the literature, history, geography, sociology or anthropology of specific cultural group or region

Minor Requirements20 hours

University Elective Courses34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Interdisciplinary Major in Children's Literature and Drama/Theatre for the Young

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Required Courses21 hours

- CTAR222 Drama and Play in Human Experience (3 hrs)
- CTAR327 Plays for the Young (3 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)
- One course from the following*
- LITR160 African American Literature (3 hrs)
- LITR161 Native American Literature (3 hrs)
- LITR208 Multicultural Children's Literature (3 hrs)
- One course from the following:*
- LITR351 World Mythology (3 hrs)
- LITR352 Folk Literature: Ballads and Folk Tales (3 hrs)
- One course from the following:*
- ENGL450 Children's Literature: Criticism and Response (3 hrs)
- ENGL451 Writing about Controversy in Literature for the Young (3 hrs)
- One course from the following*
- CTAR322 Theatre for the Young (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)

Restricted Elective Courses15 hours

- CTAO210 Interpretative Reading (3 hrs)
- CTAR322 Theatre for the Young (3 hrs)
- CTAR323 Improvising and Role Play (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)
- CTAR326 Drama/Theatre for Persons with Disabilities (3 hrs)
- CTAR327 Plays for the Young (3 hrs)
- CTAR329 Performing Theatre for the Young (3 hrs)
- CTAR497/498/499 Independent Study (1/2/3 hrs)
- ENGL450 Children's Literature: Criticism and Response (3 hrs)
- ENGL451 Writing about Controversy in Literature for the Young (3 hrs)
- LITR160 African American Literature (3 hrs)
- LITR161 Native American Literature (3 hrs)
- LITR208 Multicultural Children's Literature (3 hrs)
- LITR251 The Bible as Literature (3 hrs)
- LITR351 World Mythology (3 hrs)
- LITR352 Folk Literature: Ballads and Folk Tales (3 hrs)
- LITR453 Children's Literature: Picture Books (3 hrs)
- LITR454 Children's Literature: Fiction (3 hrs)
- LITR497/498/499 Independent Study (1/2/3 hrs)

Occasionally special topics courses may be offered (such as children's film, storytelling, or puppetry) which may be substituted for a restricted elective with departmental permission. Qualified seniors may, with an advisers permission, substitute appropriate 500- level courses.

Capstone Experience

At the conclusion of the program, the students will submit a portfolio of three papers/projects/performances which the student believes are representative of his/her best work produced for the major. By the middle of the student's final semester, he/she will consult with his/her adviser about the materials to be submitted and the date that they are due. All materials must be submitted at least on month prior to the close of the semester in question. This portfolio will be evaluated by a committee composed of members of the English Department's Children's Literature faculty and Drama/Theatre for the Young faculty from the Department of Communication and Theatre Arts. Portfolios will be stored in a file cabinet in Pray-Harrod 318. Students whose portfolios are found to be deficient will be asked to make up that deficiency and submit new materials.

Minor Requirements20 hours

University Elective Courses28 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Journalism Major

Students will be required to complete 30 credit hours in professional journalism and writing courses (see below), plus a 20-hour minor in a specified field. Admission to the program will require a 2.5 GPA.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Required Courses 27 hours

- ENGL324 Principles of Technical Communication (3 hrs)
- JRNL213 Introduction to the Print Media (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL307 Copy Editing (3 hrs)
- JRNL313 History of American Journalism (3 hrs)
- JRNL453 Advanced Reporting (3 hrs)
- JRNL454 Contemporary Problems in Journalism (3 hrs)
- JRNL455 Journalism and the Law (3 hrs)

Restricted Elective Courses 6 hours

Two courses from the following:

- ENGL324 Principles of Technical Communication (3 hrs)
- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL444 Writing for the World Wide Web (3 hrs)
- JRNL305 Editorial, Column and Review Writing (3 hrs)
- JRNL311 Newspaper Layout and Design (3 hrs)
- JRNL312 Introduction to Public Relations (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)
- JRNL423 Magazine Article Writing (3 hrs)
- JRNL387/487 Cooperative Education in Journalism/
Public Relations (3 hrs)
- JRNL488/489/490 Internship in Journalism/Public
Relations (1/2/3 hrs)

Minor Requirements20 hours

University Elective Courses31 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Language, Literature

and Writing Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Required Courses 9 hours

- *ENGL300 Writing about Literature (3 hrs)
- LING201 An Introduction to Linguistics (3 hrs)
- LITR490 Senior Seminar (3 hrs)

Restricted Elective Courses27 hours

One course from the following:

- LING401 Introduction to Linguistic Science (3 hrs)
- LING402 Modern English Grammar (3 hrs)
- LING421 The History of the English Language (3 hrs)

One course from the following:

- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)

One course from the following:

- ENGL225 Writing in a Changing World (3 hrs)
- ENGL323 Writing in the Professional World (3 hrs)
- ENGL324 Principles of Technical Communication (3 hrs)
- ENGL326 Research Writing (3 hrs)
- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)

One course from the following:

- LITR361 Studies in Native American Literature (3 hrs)
- LITR362 Studies in African American Literature (3 hrs)

One course from Literature before 1800:

- LITR312 English Literature in the Middle Ages (3 hrs)
- LITR314 English Renaissance Prose and Poetry 1500-
1660 (3 hrs)

- LITR315 Restoration and Eighteenth-Century
Literature (3 hrs)

One course from Literature after 1800:

- LITR309 The Development of American Literature (3 hrs)
- LITR310 Modern American Literature (3 hrs)
- LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)
- LITR317 Victorian and Edwardian Literature
1832-1914 (3 hrs)

- LITR360 Recent Trends in British and American
Literature (3 hrs)

One course from Major Authors:

- LITR405 Shakespeare (3 hrs)
- LITR413 The Poetry of Chaucer (3 hrs)
- LITR450 Major Authors (3 hrs)

One course from Genre:

- LITR411 Studies in Epic and Romance (3 hrs)
- LITR420 Studies in the British Novel (3 hrs)
- LITR421 Studies in the American Novel (3 hrs)
- LITR422 Studies in the Novel in Global Perspective (3 hrs)
- LITR430 Studies in Drama (3 hrs)
- LITR440 Genre Studies (3 hrs)
- LITR470 Studies in Poetry (3 hrs)

One course from Literature and Culture:

- LITR443 Women in Literature (3 hrs)
- LITR480 Studies in Literature and Culture (3 hrs)

Minor Requirements20 hours

University Elective Courses28 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Literature Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....27 hours

Required Basic Literature Course..... 3 hours

- ENGL300 Writing about Literature (3 hrs)
- LITR490 Senior Seminar (3 hrs)

Restricted Elective Courses21 hours

One course from the following

- LITR361 Studies Native American Literature (3 hrs)
- LITR362 Studies in African American Literature (3 hrs)

One course from Literature before 1800:

- LITR312 English Literature in the Middle Ages (3 hrs)
- LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
- LITR315 Restoration and Eighteenth-Century Literature (3 hrs)

One course from Literature of the Nineteenth Century:

- LITR309 The Development of American Literature (3 hrs)
- LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)
- LITR317 Victorian and Edwardian Literature 1832-1914 (3 hrs)

One course from Literature of the Twentieth Century:

- LITR310 Modern American Literature (3 hrs)
- LITR360 Recent Trends in British and American Literature (3 hrs)

One course from Major Authors:

- LITR405 Shakespeare (3 hrs)
- LITR413 The Poetry of Chaucer (3 hrs)
- LITR450 Major Authors (3 hrs)

One course from Genre:

- LITR411 Studies in Epic and Romance (3 hrs)
- LITR420 Studies in the British Novel (3 hrs)
- LITR421 Studies in the American Novel (3 hrs)
- LITR422 Studies in the Novel in Global Perspective (3 hrs)
- LITR430 Studies in Drama (3 hrs)
- LITR440 Genre Studies (3 hrs)
- LITR470 Studies in Poetry (3 hrs)

One course from Literature and Culture:

- LITR443 Women in Literature (3 hrs)
- LITR480 Studies in Literature and Culture (3 hrs)

Elective Course 3 hours

One course from the following:

- LITR210 Introduction to Shakespeare (3 hrs)
- LITR251 The Bible as Literature (3 hrs)
- LITR400 Narrative in Literature and Film (3 hrs)

Minor Requirements 20 hours
University Elective Courses 37 hours
Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Professional Writing Major

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 30 hours

Required Courses 21 hours

- ENGL324 Principles of Technical Communication (3 hrs)
- ENGL424 Technical Writing (3 hrs)
- ENGL427 Technical Editing (3 hrs)
- ENGL484 Seminar in Written Communications (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL312 Introduction to Public Relations (3 hrs)

Restricted Elective Courses 9 hours

Three courses from the following:

- CMT121 Graphic Communication (3 hrs)
- CMT204 Photographic Communication (3 hrs)
- CMT436 Electronic Publishing Technology (3 hrs)
- CRTW335 Imaginative Writing (3 hrs)
- CRTW422 Writer's Workshop: Fiction or Poetry (3 hrs)
- ENGL225 Writing in a Changing World (3 hrs)

- ENGL326 Research Writing (3 hrs)
- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL387/487 Cooperative Education in English (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)
- ENGL428 Writing Computer Documentation (3 hrs)
- ENGL444 Writing for the World Wide Web (3 hrs)
- ENGL488/489/490 Internship in Technical Writing (1/2/3 hrs)
- JRNL305 Editorial, Column and Review Writing (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)
- JRNL387/487 Cooperative Education in Journalism/Public Relations (3 hrs)
- JRNL423 Magazine Article Writing (3 hrs)
- JRNL488/489/490 Internship in Journalism/Public Relations (1/2/3 hrs)
- STS201 Microcomputer Applications in Technology (3 hrs)

Minor Requirements 20 hours

University Elective Courses 34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Interdisciplinary Major in Public Relations

Admission to the program will require a 2.8 GPA, which must be maintained in the major as well as in the minor selected. Admission is granted by the Department of English Language and Literature. Courses from both the Department of English Language and Literature and the Department of Communication and Theatre Arts are offered as requirements and restricted elective courses.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours

One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC227 Interpersonal Communication (3 hrs)

Major Requirements 48 hours

Required Fundamental Courses 21 hours

- ART165 Graphic Design for Non-majors (3 hrs)
- CTAS124 Fundamentals of Speech (3 hrs)
- CTAT141 Audio and Video Production for Non-Majors (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL312 Introduction to Public Relations (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)

One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC350 Persuasion (3 hrs)

Required Advanced Courses 18 hours

- CTAC475 Research in Speech Communication (3 hrs)
 - JRNL306 Feature Writing (3 hrs)
 - JRNL408 Case Studies in Public Relations (3 hrs)
- One course from the following:*
- JRNL487 Cooperative Education in Journalism/Public Relations (3 hrs)
 - JRNL490 Internship in Journalism/Public Relations (3 hrs)

One course from the following:

- CTAT334 Radio-Television News (3 hrs)
- CTAT344 Continuity Writing for Electronic Media (3 hrs)

One course from the following:

- CTAC354 Organizational Communication (3 hrs)
- CTAC357 Interviewing as Communication (3 hrs)

Restricted Elective Courses 9 hours

- CMT204 Photographic Communication (3 hrs)
- CMT436 Electronic Publishing Technology (3 hrs)
- ENGL323 Writing in the Professional World (3 hrs)
- ENGL444 Writing for the World Wide Web (3 hrs)
- JRNL307 Copy Editing (3 hrs)
- JRNL311 Newspaper Layout and Design (3 hrs)
- JRNL455 Journalism and the Law (3 hrs)

One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC350 Persuasion (3 hrs)

One course from the following:

- CTAC227 Interpersonal Communication (3 hrs)
- CTAC359 Small Group Communication (3 hrs)
- CTAT241 Radio-Television-Film Announcing (3 hrs)

One course from the following:

- CTAT334 Radio-Television News (3 hrs)
- CTAT344 Continuity Writing for Radio-Television-Film (3 hrs)

Maximum of six-hours from the following:

- CTAC387/388/389 Cooperative Education in Communication (1/2/3 hrs)
- CTAC487/488/489 Internship in Communication (1/2/3 hrs)
- JRNL387/487 Cooperative Education in Journalism/Public Relations (3 hrs)
- JRNL488/489/490 Internship in Journalism/Public Relations (1/2/3 hrs)

Minor Requirements20 hours

University Elective Courses 13 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Technical Communication Major

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Courses 24 hours

- CMT204 Photographic Communication (3 hrs)
- CMT436 Electronic Publishing Technology (3 hrs)
- ENGL324 Principles of Technical Communication (3 hrs)
- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL424 Technical Writing (3 hrs)
- ENGL427 Technical Editing (3 hrs)
- ENGL428 Writing Computer Documentation (3 hrs)
- ENGL484 Seminar in Written Communications (3 hrs)

Restricted Elective Courses 6 hours

Two courses from the following:

- ART165 Graphic Design for Non-majors (3 hrs)
- CADM105 Computer Applications for Industry (3 hrs)
- CMT121 Graphic Communication (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- CTAC227 Interpersonal Communication (3 hrs)
- ENGL225 Writing in a Changing World (3 hrs)
- ENGL326 Research Writing (3 hrs)
- ENGL387/487 Cooperative Education in English (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)
- ENGL444 Writing for the World Wide Web (3 hrs)

ENGL488/489/490 Internship in Technical Writing (1/2/3 hrs)

- ENGL524 Advanced Technical Writing and Research (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)
- STS201 Microcomputer Applications in Technology (3 hrs)

Minor Requirements20 hours

University Elective Courses34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Written Communication Major — Concentration in Imaginative Writing

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Courses 15 hours

- †CRTW335 Imaginative Writing (3 hrs)
- †CRTW422 Writer's Workshop: Fiction or Poetry (3 hrs)

One course from the following:

- ENGL225 Writing in a Changing World (3 hrs)
- ENGL326 Research Writing (3 hrs)
- Two 300- or 400-level literature courses (6 hrs)

Restricted Elective Courses 15 hours

Five courses from the following:

- †CRTW335 Imaginative Writing (3 hrs)
- †CRTW422 Writer's Workshop: Fiction or Poetry (3 hrs)
- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)
- ENGL444 Writing for the World Wide Web (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL423 Magazine Article Writing (3 hrs)
- LING402 Modern English Grammar (3 hrs)
- LING421 The History of the English Language (3 hrs)

Minor Requirements20 hours

University Elective Courses34 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Course may be repeated for additional credit if topic is different.

Language, Literature and Writing Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in English, certification code BA, and, depending on the minor selected, an additional endorsement. This program of studies

meets all requirements of the National Council of Teachers of English. The Michigan Test for Teacher Certification (MTTC) covering this field is #02, "English."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours

Required Courses9 hours

- ENGL300 Writing about Literature (3 hrs)
- ENGL408 Writing for Writing Teachers (3 hrs)
- LING201 An Introduction to Linguistics (3 hrs)

Restricted Elective Courses24 hours

One course from the following:

- LING401 Introduction to Linguistic Science (3 hrs)
- LING402 Modern English Grammar (3 hrs)
- LING421 The History of the English Language (3 hrs)

One course from the following:

- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)

One course from the following:

- LITR361 Studies in Native American Literature (3 hrs)
- LITR362 Studies in African American Literature (3 hrs)

One course from Literature before 1800:

- LITR312 English Literature in the Middle Ages (3 hrs)
- LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
- LITR315 Restoration and Eighteenth-Century Literature (3 hrs)

One course from Literature after 1800:

- LITR309 The Development of American Literature (3 hrs)
- LITR310 Modern American Literature (3 hrs)
- LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)
- LITR317 Victorian and Edwardian Literature 1832-1914 (3 hrs)
- LITR360 Recent Trends in British and American Literature (3 hrs)

One course from Major Authors:

- LITR405 Shakespeare (3 hrs)
- LITR413 The Poetry of Chaucer (3 hrs)
- LITR450 Major Authors (3 hrs)

One course from Genre:

- LITR411 Studies in Epic and Romance (3 hrs)
- LITR420 Studies in the British Novel (3 hrs)
- LITR421 Studies in the American Novel (3 hrs)
- LITR422 Studies in the Novel in Global Perspective (3 hrs)
- LITR430 Studies in Drama (3 hrs)
- LITR440 Genre Studies (3 hrs)
- LITR470 Studies in Poetry (3 hrs)

One course from Literature and Culture:

- LITR443 Women in Literature (3 hrs)
- LITR480 Studies in Literature and Culture (3 hrs)

Elective Course3 hours

One course from the following:

- CRTW335 Imaginative Writing (3 hrs)
- ENGL323 Writing in the Professional World (3 hrs)
- ENGL324 Principles of Technical Communication (3 hrs)
- ENGL326 Research Writing (3 hrs)
- JRN215 News Writing and Reporting (3 hrs)
- LING205 English Words (3 hrs)
- LING310 African American Language (3 hrs)
- LING340 Language and Culture (3 hrs)
- LITR210 Introduction to Shakespeare (3 hrs)
- LITR251 The Bible as Literature (3 hrs)
- LITR400 Narrative in Literature and Film (3 hrs)

Professional Studies39 hours

You must complete courses in each phase before moving on to the next phase. Italicized courses are corequisites.

Pre-Admission phase: The Learner

and the Community8 hours

EDPS322 Human Development and Learning (4 hrs)

FETE201 Field Experience I (1 hr)

SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

and the Social Context10 hours

CURR305 Curriculum and Methods: Secondary (3 hrs)

EDPS340 Introduction to Assessment and

Evaluation (3 hrs)

FETE302 Field Experience II: Secondary (1 hr)

SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

Literacy and Technology9 hours

EDMT330 Instructional Applications of Media and Technology (2 hrs)

ENGL409 Teaching English in the Secondary Schools (3 hrs)

FETE402 Field Experience III: Secondary (1 hr)

RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

EDUC492 Student Teaching (12 hrs)

Minor Requirements20-25 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total135-140 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Children's Literature Minor

Required Courses24 hours

LITR207 Introduction to Children's Literature (3 hrs)

One course from the following:

†ENGL450 Children's Literature: Criticism and Response (3 hrs)

†ENGL451 Writing about Controversy in Literature for the Young (3 hrs)

Two courses from the following:

LITR100 The Reading of Literature (3 hrs)

LITR101 The Reading of Literature: Fiction (3 hrs)

LITR102 The Reading of Literature: Poetry (3 hrs)

LITR103 The Reading of Literature: Drama (3 hrs)

One course from the following:

LITR161 Native American Literature (3 hrs)

LITR208 Multicultural Children's Literature (3 hrs)

LITR160 African American Literature (3 hrs)

Three courses from the following:

†ENGL450 Children's Literature: Criticism and Response (3 hrs)

†ENGL451 Writing about Controversy in Literature for the Young (3 hrs)

LITR251 The Bible as Literature (3 hrs)

LITR351 World Mythology (3 hrs)

LITR352 Folk Literature: Ballads and Folk Tales (3 hrs)

LITR453 Children's Literature: Picture Books (3 hrs)

LITR454 Children's Literature: Fiction (3 hrs)

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above. †Neither ENGL450 nor ENGL451 can be counted toward the minor.

Creative Writing Minor

Required Courses 15 hours

- CRTW201 Introduction to Creative Writing (3 hrs)
- CRTW426 Contemporary Forms (3 hrs)
- Three workshops (9 hrs) from the following:
 - †CRTW335 Creative Writing (3 hrs)
 - †CRTW422 Writing Workshop (3 hrs)

Restricted Electives 6 hours

- Two courses selected from the following:
 - ART428 Seminar in 20th Century Art (3 hrs)
 - CTA360 Dramatic Composition (3 hrs)
 - PHIL460 Philosophy of Language (3 hrs)
 - 300-400 level courses in CRTW, LITR, ENGL, JRNL or LING

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.
†Course may be repeated for additional credit if topic is different.

English Language Minor

Required Courses 12 hours

- ENGL324 Principles of Technical Communication (3 hrs)
- LING201 An Introduction to Linguistics (3 hrs)
- One course from the following:
 - ENGL328 Writing, Style and Technology (3 hrs)
 - ENGL417 Writing about Controversies (3 hrs)
- One course from the following:
 - LING205 English Words (3 hrs)
 - LING402 Modern English Grammar (3 hrs)
 - LING421 The History of the English Language (3 hrs)

Restricted Elective Courses 9 hours

- ENGL225 Writing in a Changing World (3 hrs)
- ENGL326 Research Writing (3 hrs)
- ENGL387/487 Cooperative Education in English (3 hrs)
- ENGL424 Technical Writing (3 hrs)
- ENGL427 Technical Editing (3 hrs)
- ENGL428 Writing Computer Documentation (3 hrs)
- ENGL484 Seminar in Written Communications (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL307 Copy Editing (3 hrs)
- JRNL314 Writing for Public Relations (3 hrs)
- JRNL423 Magazine Article Writing (3 hrs)
- JRNL453 Advanced Reporting (3 hrs)
- LING310 African American Language (3 hrs)
- LING340 Language and Culture (3 hrs)
- LING497 Independent Study (3 hrs)
- Any other LING course approved by the undergraduate adviser

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

English Linguistics Minor

Required Courses 6 hours

- LING201 An Introduction to Linguistics (3 hrs)
- LING401 Introduction to Linguistic Science (3 hrs)

Restricted Elective Courses 15 hours

- LITR312 English Literature in the Middle Ages (3 hrs)
- LITR413 The Poetry of Chaucer (3 hrs)
- Any LING course

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Journalism Minor

Required Courses 18 hours

- JRNL213 Introduction to the Print Media (3 hrs)
- JRNL215 News Writing and Reporting (3 hrs)
- JRNL306 Feature Writing (3 hrs)
- JRNL307 Copy Editing (3 hrs)
- JRNL313 History of American Journalism (3 hrs)
- JRNL454 Contemporary Problems in Journalism (3 hrs)

Restricted Elective Courses 6 hours

- Two courses from the following:
 - ART165 Graphic Design for Non-majors (3 hrs)
 - CMT121 Graphic Communication (3 hrs)
 - CMT204 Photographic Communication (3 hrs)
 - CTAT141 Audio and Video Production for Non-Majors (3 hrs)
 - CTAT334 Radio-Television News (3 hrs)
 - CTAT344 Continuity Writing for Electronic Media (3 hrs)
 - ENGL324 Principles of Technical Communication (3 hrs)
 - ENGL328 Writing, Style and Technology (3 hrs)
 - ENGL424 Technical Writing (3 hrs)
 - JRNL305 Editorial, Column and Review Writing (3 hrs)
 - JRNL311 Newspaper Layout and Design (3 hrs)
 - JRNL312 Introduction to Public Relations (3 hrs)
 - JRNL423 Magazine Article Writing (3 hrs)
 - JRNL453 Advanced Reporting (3 hrs)

Minor Total 24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Language, Literature and Writing Minor

Required Courses 6 hours

- ENGL300 Writing about Literature (3 hrs)
- LING201 An Introduction to Linguistics (3 hrs)

Restricted Elective Courses 18 hours

- One course from the following:
 - LITR208 Multicultural Children's Literature (3 hrs)
 - LITR361 Studies in Native American Literature (3 hrs)
 - LITR362 Studies in African American Literature (3 hrs)
- One period course from the following:
 - LITR309 The Development of American Literature (3 hrs)
 - LITR310 Modern American Literature (3 hrs)
 - LITR312 English Literature in the Middle Ages (3 hrs)
 - LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
 - LITR315 Restoration and Eighteenth-Century Literature (3 hrs)
 - LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)
 - LITR317 Victorian and Edwardian Literature 1832-1914 (3 hrs)
 - LITR360 Recent Trends in British and American Literature (3 hrs)
- One course from major authors, genre or literature and culture:
 - LITR405 Shakespeare (3 hrs)
 - LITR411 Studies in Epic and Romance (3 hrs)
 - LITR413 The Poetry of Chaucer (3 hrs)
 - LITR420 Studies in the British Novel (3 hrs)
 - LITR421 Studies in the American Novel (3 hrs)
 - LITR422 Studies in the Novel in Global Perspective (3 hrs)
 - LITR430 Studies in Drama (3 hrs)
 - LITR440 Genre Studies (3 hrs)
 - LITR443 Women in Literature (3 hrs)
 - LITR450 Major Authors (3 hrs)

- LITR470 Studies in Poetry (3 hrs)
 - LITR480 Studies in Literature and Culture (3 hrs)
 - One linguistics course from the following:*
 - LING205 English Words (3 hrs)
 - LING310 African American Language (3 hrs)
 - LING340 Language and Culture (3 hrs)
 - LING401 Introduction to Linguistic Science (3 hrs)
 - LING402 Modern English Grammar (3 hrs)
 - LING421 The History of the English Language (3 hrs)
 - One writing course from the following:*
 - ENGL328 Writing, Style and Technology (3 hrs)
 - ENGL417 Writing about Controversies (3 hrs)
 - A second writing course from the following:*
 - ENGL225 Writing in a Changing World (3 hrs)
 - ENGL323 Writing in the Professional World (3 hrs)
 - ENGL324 Principles of Technical Communication (3 hrs)
 - ENGL326 Research Writing (3 hrs)
 - ENGL328 Writing, Style and Technology (3 hrs)
 - ENGL417 Writing about Controversies (3 hrs)
 - JRN215 News Writing and Reporting (3 hrs)
 - JRN314 Writing for Public Relations (3 hrs)
- Minor Total 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Literature Minor

- Required Course 3 hours
 - ENGL300 Writing about Literature (3 hrs)
- Restricted Elective Courses 15 hours
 - One course from the following:*
 - LITR361 Native American Literature (3 hrs)
 - LITR362 African American Literature (3 hrs)
 - One course from the following:*
 - LITR309 The Development of American Literature (3 hrs)
 - LITR310 Modern American Literature (3 hrs)
 - LITR312 English Literature in the Middle Ages (3 hrs)
 - LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
 - LITR315 Restoration and Eighteenth-Century Literature (3 hrs)
 - LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)
 - LITR317 Victorian and Edwardian Literature 1832-1914 (3 hrs)
 - LITR360 Recent Trends in British and American Literature (3 hrs)
 - One course from the following:*
 - LITR405 Shakespeare (3 hrs)
 - LITR413 The Poetry of Chaucer (3 hrs)
 - LITR450 Major Authors (3 hrs)
 - One course from the following:*
 - LITR411 Studies in Epic and Romance (3 hrs)
 - LITR420 Studies in the British Novel (3 hrs)
 - LITR421 Studies in the American Novel (3 hrs)
 - LITR422 Studies in the Novel in Global Perspective (3 hrs)
 - LITR430 Studies in Drama (3 hrs)
 - LITR440 Genre Studies (3 hrs)
 - LITR470 Studies in Poetry (3 hrs)
 - One course from the following:*
 - LITR443 Women in Literature (3 hrs)
 - LITR480 Studies in Literature and Culture (3 hrs)

- Elective Course 3 hours
 - One course from the following:*
 - LITR210 Introduction to Shakespeare (3 hrs)
 - LITR251 The Bible as Literature (3 hrs)
 - LITR400 Narrative in Literature and Film (3 hrs)

Minor Total 21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Writing Minor

- Required Courses 9 hours
 - ENGL328 Writing, Style and Technology (3 hrs)
 - One course from the following:*
 - CRTW335 Imaginative Writing (3 hrs)
 - ENGL324 Principles of Technical Communication (3 hrs)
 - ENGL326 Research Writing (3 hrs)
 - One course from the following:*
 - CRTW422 Writer's Workshop: Fiction or Poetry (3 hrs)
 - ENGL417 Writing about Controversies (3 hrs)
 - ENGL424 Technical Writing (3 hrs)
- Restricted Elective Courses 12 hours
 - Twelve hours from the following:*
 - CTAR360 Dramatic Composition (3 hrs)
 - CTAR361 Dramatic Writing (3 hrs)
 - CTAT344 Continuity Writing for Electronic Media (3 hrs)
 - ENGL323 Writing in the Professional World (3 hrs)
 - ENGL427 Technical Editing (3 hrs)
 - ENGL428 Writing Computer Documentation (3 hrs)
 - ENGL444 Writing for the World Wide Web (3 hrs)
 - JRN215 News Writing and Reporting (3 hrs)
 - JRN306 Feature Writing (3 hrs)
 - JRN423 Magazine Article Writing (3 hrs)
 - Any course listed as a requirement above including repeats of CRTW335 Imaginative Writing or CRTW422 Writer's Workshop: Fiction or Poetry if the topics are different, and ENGL225 Writing in a Changing World (3 hrs)

Minor Total 21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Language, Literature and Writing Minor

- Elementary, Secondary, K-12, Special Education-Elementary and Special Education-Secondary Teacher Certification
- Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in English, certification code BA. The Michigan Test for Teacher Certification (MTTC) covering this field is #02, "English."
- Required Courses 9 hours
 - *ENGL300 Writing about Literature (3 hrs)
 - ENGL408 Writing for Writing Teachers (3 hrs)
 - LING201 An Introduction to Linguistics (3 hrs)
- Restricted Elective Courses 15 hours
 - Literature: Multicultural
 - One course from the following:*
 - *LITR361 Native American Literature (3 hrs)
 - *LITR362 African American Literature (3 hrs)
 - Literature: Period
 - One course from the following:*
 - LITR309 The Development of American Literature (3 hrs)
 - LITR310 Modern American Literature (3 hrs)
 - LITR312 English Literature in the Middle Ages (3 hrs)
 - LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
 - LITR315 Restoration and Eighteenth-Century Literature (3 hrs)
 - LITR316 Romantic Rebellion in Britain 1798-1832 (3 hrs)

- LITR317 Victorian and Edwardian Literature 1832-1914 (3 hrs)
- LITR360 Recent Trends in British and American Literature (3 hrs)

Literature: Major Author, Genre, or Culture

One course from the following:

- LITR405 Shakespeare (3 hrs)
- LITR411 Studies in Epic and Romance (3 hrs)
- LITR413 The Poetry of Chaucer (3 hrs)
- LITR420 Studies in the British Novel (3 hrs)
- LITR421 Studies in the American Novel (3 hrs)
- LITR422 Studies in the Novel in Global Perspective (3 hrs)
- LITR430 Studies in Drama (3 hrs)
- LITR440 Genre Studies (3 hrs)
- LITR443 Women in Literature (3 hrs)
- LITR450 Major Authors (3 hrs)
- LITR470 Studies in Poetry (3 hrs)
- LITR480 Studies in Literature and Culture (3 hrs)

Language Study

One course from the following:

- LING401 Introduction to Linguistic Science (3 hrs)
- LING402 Modern English Grammar (3 hrs)
- LING421 The History of the English Language (3 hrs)

Writing

One course from the following:

- ENGL328 Writing, Style and Technology (3 hrs)
- ENGL417 Writing about Controversies (3 hrs)

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Foreign Languages and Bilingual Studies

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 Website: www.emich.edu/public/foreignlanguages/fl_welcome.html

See pages 268, 293, 297, 299, 302, 305, 318, 320, 324, 364 and 371 for course descriptions.

The Department of Foreign Languages and Bilingual Studies offers a variety of traditional and innovative majors and minors in French, German, Japanese, Spanish and English as a second language; a minor in classical studies; a group minor in bilingual-bicultural teacher education leading to either elementary or secondary certification; and a group minor in teaching English to speakers of other languages; and a group major in language and international trade.

Students in the Language and International Trade (L&IT) program with concentrations in business German are eligible to take examinations administered by Eastern Michigan University to validate their business language competency.

A placement test is given at the beginning of the fall and winter terms, and is required of all students of foreign language unless they are taking their first course in a foreign language or have completed their last course in that language at EMU. It is also recommended for students whose last course in a language was completed more than one year previously. Further

details on testing are available in the department office. Students should consult advising coordinators for interpreting test results and creating a schedule.

Any course for which a student registers prior to receiving placement test results will be considered provisional. The Department of Foreign Languages and Bilingual Studies will help students change their registration to the appropriate course, when necessary, without incurring financial penalties.

Listed below are approximate guidelines for preliminary registration. They do not consider important factors such as actual grades received, academic standards, amount of time elapsed since completing the course, etc.:

- one to two years of high school would probably place in 121.
- three years of high school would probably place in 122.
- more than three years of high school would probably place in 221 (except in Spanish) and/or 233. In Spanish, most would probably place in 201.
- For every year elapsed between the present and the last completed course in your foreign language, go down one level (e.g. from 200 to 100, etc.).

Students placing at the 100- or 200-level may need up to 24 additional credit hours of language study before beginning courses required for a major in foreign language.

Department Residency Requirements:

1. Residency, for the purposes of this section, means registering for, attending and successfully completing the required courses.
2. Teaching majors in French, German Language and Literature, Japanese Language and Culture or Spanish:
 Students declaring teaching majors in a foreign language must complete at EMU 15 credit hours consisting of the appropriate courses at the 400-level for the major chosen. For teaching majors in French, German and Spanish, these courses are 443, 444, 490 and 492. For teaching majors in Japanese, they are 444, 446, 490 and 494.
3. Non-teaching majors in French, German Language and Literature, Japanese Language and Culture, or Spanish (but not Language and International Trade):
 Students declaring non-teaching majors in a foreign language must complete at EMU 15 credit hours consisting of the appropriate courses at the 300- and 400- level for the major chosen. For non-teaching majors in French, German and Spanish, these courses are 443, 444, 490 and 492. For non-teaching majors in Japanese, they are 344, 361, 444, 446 and 494.
4. Language and International Trade major:
 Students must complete the following nine credit hours in French, German, Japanese or Spanish: 361, 446, 447.
5. Teaching minors in French, German Language and Literature, Bilingual-Bicultural Education Spanish-English, or Spanish:
 Students declaring teaching minors in a foreign language must complete at EMU 12 credit hours consisting of the appropriate courses at the 400-level for the minor chosen. For teaching minors in French, German and Spanish these courses are 443, 444 and 490. For Bilingual-Bicultural Education Spanish-English, they are FLAN421, FLAN422, SPNH471 and SPNH 482.
6. Non-teaching minors in French, German, Japanese, or Spanish:
 Students declaring non-teaching minors in a foreign language must complete at EMU 6 credit hours consisting of the appropriate courses at the 300- and 400- level for the minor chosen. For non-teaching minors in French and German, these courses are either courses 343 and 344 or six credit hours at the 400 level for which the student has the prerequisites. For Japanese, students must take any two of the following courses: 343, 344 and 361 or 444. For Spanish, the courses are either 343 and 344, or 443 and 444.

Oral proficiency interview requirement:

All students on teaching curricula in Foreign Languages and Bilingual Studies shall be rated in the last semester prior to graduation through an interview conducted by an oral proficiency tester certified by ETS-ACTFL.

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:

Undergraduate TOEFL (CBT).....	173
Undergraduate TOEFL (PBT)	500
Undergraduate TOEFL (iBT)	61
Undergraduate MELAB	72
Undergraduate IELTS	6.0

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.

Group Major in Language and International Trade French

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major.

The major in language and international trade is designed to integrate the study of modern foreign languages and cultures with preparation in the field of international business. The major objective of the program is to provide students with the skills, knowledge and understanding needed to function in a foreign environment and in professional dealings with business people and clients who speak foreign languages. Students completing this group major will have met the major and minor requirements for graduation. The minor is included in the major requirements.

Qualified students in French may have the option of participating in a cooperative work exchange in an area of the world where French is spoken.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....57 hours

Business Minor21 hours

Students must complete requirements for a minor in an operational area of business of their choosing. These areas include: economics, marketing, management, accounting, finance, business computer systems, general business and office administration, among others. Special combinations of business courses equivalent to a minor are possible in consultation with an adviser.

Additional Required Business Courses6 hours

MKTG460 International Marketing (3 hrs)

One course from the following:

ECON370 Comparative Economic Systems (3 hrs)

ECON480 International Economics (3 hrs)

Language and Area Studies Courses.....27 hours

FRNH343 French Composition (3 hrs)

FRNH361 French for International Trade (3 hrs)

FRNH446 Business French I (3 hrs)

FRNH447 Business French II (3 hrs)

One FRNH at the 300- or 400-level (3 hrs)

One FRNH at the 400-level (3 hrs)

GEOG316 History and Geography of Modern Europe (3 hrs)

HIST316 History and Geography of Modern Europe (3 hrs)

One course from the following:

PLSC211 Introduction to Comparative Government (3 hrs)

PLSC212 Introduction to International Politics (3 hrs)

PLSC341 International Law (3 hrs)

PLSC342 International Organizations (3 hrs)

PLSC354 Government and Politics of Canada (3 hrs)

PLSC367 Latin American Politics (3 hrs)

PLSC412 Comparative Legal Systems (3 hrs)

Field Experience.....3 hours

One course from the following:

FLAN387/487 Cooperative Education in Foreign Language (3 hrs)

FLAN489 Internship in Language and International Trade (3 hrs)

Minor Requirements0 hours

Minor included in major above.

University Elective Courses27 hours

Program Total124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Group Major in Language and International Trade German

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major.

The major in language and international trade is designed to integrate the study of modern foreign languages and cultures with preparation in the field of international business. The major objective of the program is to provide students with the skills, knowledge and understanding needed to function in a foreign environment and in professional dealings with business people and clients who speak foreign languages. Students completing this group major will have met the major and minor requirements for graduation. The minor is included in the major requirements.

Qualified students in German may have the option of participating in a cooperative work exchange in an area of the world where German is spoken. Students may take examinations leading to foreign certification in business German.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....57 hours

Business Minor21 hours

Students must complete requirements for a minor in an operational area of business of their choosing. These areas include: economics, marketing, management, accounting, finance, business computer systems and general business, among others. Special combinations of business courses equivalent to a minor are possible in consultation with an adviser.

Additional Required Business Courses6 hours

MKTG460 International Marketing (3 hrs)

One course from the following:
 ECON370 Comparative Economic Systems (3 hrs)
 ECON480 International Economics (3 hrs)

Language and Area Studies Courses.....27 hours
 GEOG316 History and Geography of Modern Europe (3 hrs)
 GERN343 German Composition on Cultures and Civilization (3 hrs)
 GERN361 German for International Trade (3 hrs)
 GERN446 Business German I (3 hrs)
 GERN447 Business German II (3 hrs)
 One GERN at the 300- or 400-level (3 hrs)
 One GERN at the 400-level (3 hrs)
 HIST316 History and Geography of Modern Europe (3 hrs)

One Political Science course from the following:
 PLSC211 Introduction to Comparative Government (3 hrs)
 PLSC212 Introduction to International Politics (3 hrs)
 PLSC341 International Law (3 hrs)
 PLSC342 International Organizations (3 hrs)
 PLSC354 Government and Politics of Canada (3 hrs)
 PLSC367 Latin American Politics (3 hrs)
 PLSC412 Comparative Legal Systems (3 hrs)

Field Experience..... 3 hours
 One course from the following:
 FLAN387/487 Cooperative Education in Foreign Language (3 hrs)
 FLAN489 Internship in Language and International Trade (3 hrs)

Minor Requirements 0 hours
Minor included in major above.

University Elective Courses27 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Group Major in Language and International Trade Japanese

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major.

The major in language and international trade is designed to integrate the study of modern foreign languages and cultures with preparation in the field of international business. The major objective of the program is to provide students with the skills, knowledge and understanding needed to function in a foreign environment and in professional dealings with business people and clients who speak foreign languages. Students completing this group major will have met the major and minor requirements for graduation. The minor is included in the major requirements.

Qualified students in Japanese may have the option of participating in a cooperative work exchange in an area of the world where Japanese is spoken.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....57 hours
 Business Minor21 hours

Students must complete requirements for a minor in an operational area of business of their choosing. These areas include: economics, marketing, management, accounting, finance, business computer systems and general business, among others. Special combinations of business courses equivalent to a minor are possible in consultation with an adviser.

Additional Required Business Courses.....6 hours
 MKTG460 International Marketing (3 hrs)

One course from the following:
 ECON370 Comparative Economic Systems (3 hrs)
 ECON480 International Economics (3 hrs)

Language and Area Studies Courses.....27 hours
 GEOG326 History and Geography of Modern Asia (3 hrs)
 HIST326 History and Geography of Modern Asia (3 hrs)
 JPNE343 Japanese Composition (3 hrs)
 JPNE361 Japanese for International Trade (3 hrs)
 JPNE446 Business Japanese I (3 hrs)
 JPNE447 Business Japanese II (3 hrs)
 One JPNE at the 300- or 400-level (3 hrs)
 One JPNE at the 400-level (3 hrs)

One Political Science course from the following:
 PLSC211 Introduction to Comparative Government (3 hrs)
 PLSC212 Introduction to International Politics (3 hrs)
 PLSC341 International Law (3 hrs)
 PLSC342 International Organizations (3 hrs)
 PLSC354 Government and Politics of Canada (3 hrs)
 PLSC367 Latin American Politics (3 hrs)
 PLSC412 Comparative Legal Systems (3 hrs)

Field Experience..... 3 hours

One course from the following:
 FLAN387/487 Cooperative Education in Foreign Language (3 hrs)
 FLAN489 Internship in Language and International Trade (3 hrs)

Minor Requirements 0 hours
Minor included in major above.

University Elective Courses27 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Group Major in Language and International Trade Spanish

Depending on initial placement, students may need to take up to 24 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major.

The major in language and international trade is designed to integrate the study of modern foreign languages and cultures with preparation in the field of international business. The major objective of the program is to provide students with the skills, knowledge and understanding needed to function in a foreign environment and in professional dealings with business people and clients who speak foreign languages. Students completing this group major will have met the major and minor requirements for graduation. The minor is included in the major requirements.

Qualified students in Spanish may have the option of participating in a cooperative work exchange in an area of the world where Spanish is spoken. Students may take examinations leading to foreign certification in business Spanish.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....	57 hours
Business Minor	21 hours
<i>Students must complete requirements for a minor in an operational area of business of their choosing. These areas include: economics, marketing, management, accounting, finance, business computer systems and general business, among others. Special combinations of business courses equivalent to a minor are possible in consultation with an adviser.</i>	
Additional Required Business Courses.....	6 hours
MKTG460 International Marketing (3 hrs)	
<i>One course from the following:</i>	
ECON370 Comparative Economic Systems (3 hrs)	
ECON480 International Economics (3 hrs)	
Language and Area Studies Courses.....	27 hours
GEOG317 History and Geography of Spanish America (3 hrs)	
HIST317 History and Geography of Spanish America (3 hrs)	
SPNH343 Spanish Composition (3 hrs)	
SPNH361 Spanish for International Trade (3 hrs)	
SPNH446 Business Spanish I (3 hrs)	
SPNH447 Business Spanish II (3 hrs)	
One SPNH at the 300- or 400-level (3 hrs)	
One SPNH at the 400-level (3 hrs)	
<i>One course from the following:</i>	
PLSC211 Introduction to Comparative Government (3 hrs)	
PLSC212 Introduction to International Politics (3 hrs)	
PLSC341 International Law (3 hrs)	
PLSC342 International Organizations (3 hrs)	
PLSC354 Government and Politics of Canada (3 hrs)	
PLSC367 Latin American Politics (3 hrs)	
PLSC412 Comparative Legal Systems (3 hrs)	
Field Experience.....	3 hours
<i>One course from the following:</i>	
FLAN387/487 Cooperative Education in Foreign Language (3 hrs)	
FLAN489 Internship in Language and International Trade (3 hrs)	
Minor Requirements	0 hours
<i>Minor included in major above.</i>	
University Elective Courses	27 hours
Program Total.....	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

French Major

Depending on initial placement, students may need to take up to 22 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

It is recommended that students specializing in French, or planning to continue with graduate work, carry their undergraduate study beyond the minimum requirements listed below. Many graduate schools require additional course work in literature.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Major Requirements.....	33 hours
Group I: Language Development	12 hours
FRNH343 French Composition (3 hrs)	
FRNH344 French Conversation (3 hrs)	
FRNH443 Advanced French Grammar and Composition (3 hrs)	

FRNH444 Advanced French Conversation (3 hrs)	
Group II: Literature	6 hours
FRNH341 Survey of French Literature (3 hrs)	
FRNH342 Survey of French Literature (3 hrs)	
Group III: Civilization and Culture	6 hours
<i>Selected from among the following four courses:</i>	
FRNH450 French Civilization in Film (3 hrs)	
FRNH466 French Speaking Cultures of the World (3 hrs)	
FRNH467 French Culture and Civilization (3 hrs)	
FRNH476 20th Century French Civilization (3 hrs)	
Group IV: Immersion Experience	6 hours
FRNH490 Intensive French Abroad (6 hrs)	
Group V: Capstone Experience	3 hours
FRNH492 Capstone Seminar in French (3 hrs)	

Minor Requirements	20 hours
University Elective Courses	31 hours
Program Total.....	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

German Language and Literature Major

Depending on initial placement, students may need to take up to 22 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Major Requirements.....	33 hours
Group I: Language Development	12 hours
GERN343 German Composition on Cultures and Civilization (3 hrs)	
GERN344 Principles of German Phonetics and Conversation (3 hrs)	
GERN443 German Syntax and Advanced Composition (3 hrs)	
GERN444 Advanced German Conversation (3 hrs)	
Group II: Literature	6 hours
GERN341 Survey of German Literature (3 hrs)	
GERN342 Survey of German Literature (3 hrs)	
Group III: Culture	6 hours
GERN366 The Cultures of German-Speaking Europe (3 hrs)	
GERN428 German Literature and Film from 1945 to the Present (3 hrs)	
Group IV: Immersion Experience	6 hours
GERN490 Intensive German in Europe (6 hrs)	
Group V: Capstone Senior Seminar.....	3 hours
GERN492 Senior Capstone Seminar in German (3 hrs)	

Minor Requirements	20 hours
University Elective Courses	31 hours
Program Total.....	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Japanese Language and Culture Major

Depending on initial placement, students may need to take up to 20 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours
 Required Courses18 hours

- JPNE343 Japanese Composition (3 hrs)
- JPNE344 Japanese Conversation (3 hrs)
- JPNE361 Japanese for International Trade (3 hrs)
- JPNE444 Advanced Japanese Conversation (3 hrs)
- JPNE446 Business Japanese I (3 hrs)
- JPNE494 Seminar in Japanese Studies (3 hrs)

Restricted Elective Courses12 hours

Twelve hours from the following:

- ANTH385 Culture of Japan (3 hrs)
- CTAC274 Intercultural Communication (3 hrs)
- JPNE212 Intermediate Japanese II (5 hrs)
- JPNE447 Business Japanese II (3 hrs)
- JPNE497 Independent Study (3 hrs)
- JPNE477/478/479 Special Topics (1/2/3 hrs)
- LNGE223 Introduction to Language (3 hrs)

Minor Requirements20 hours

University Elective Courses34 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Spanish Major

Depending on initial placement, students may need to take up to 24 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

The courses listed below meet the minimum requirements only; it is recommended that students specializing in Spanish, or planning to continue with graduate work, carry their undergraduate study beyond the minimum. Many graduate schools require additional course work in literature.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Group I: Language Development.....12 hours

- SPNH343 Spanish Grammar and Composition (3 hrs)
- SPNH344 Spanish Conversation and Composition (3 hrs)
- SPNH443 Advanced Spanish Grammar and Composition (3 hrs)
- SPNH444 Advanced Spanish Conversation and Composition (3 hrs)

Group II: Literature..... 6 hours

- SPNH342 Great Works of Spanish Literature (3 hrs)
- SPNH352 Great Works of Spanish-American Literature (3 hrs)

Group III: Culture..... 6 hours

- SPNH301 The Cultures of Spain (3 hrs)
- SPNH302 The Cultures of Spanish America (3 hrs)

Group IV: Immersion Experience6 hours
 SPNH490 Intensive Spanish (6 hrs)

Group V: Capstone Seminar3 hours
 SPNH492 Senior Seminar in Spanish (3 hrs)

Minor Requirements20 hours

University Elective Courses31 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

French Major Teaching

K-12 Teacher Certification

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education K-12 Provisional Certificate in French, certification code FA, and, depending on the minor selected, an additional endorsement. The Michigan Test for Teacher Certification (MTTC) covering this field is #23, "French."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Group I: Language Development12 hours

- FRNH343 French Composition (3 hrs)
- FRNH344 French Conversation (3 hrs)
- FRNH443 Advanced French Grammar and Composition (3 hrs)
- FRNH444 Advanced French Conversation (3 hrs)

Group II: Literature6 hours

- FRNH341 Survey of French Literature (3 hrs)
- FRNH342 Survey of French Literature (3 hrs)

Group III: Civilization and Culture6 hours

Selected from the among the following four courses:

- FRNH450 French Civilization in Film (3 hrs)
- FRNH466 French Speaking Cultures of the World (3 hrs)
- FRNH467 French Culture and Civilization (3 hrs)
- FRNH476 20th Century French Civilization (3 hrs)

Group IV: Immersion Experience6 hours

- FRNH490 Intensive French Abroad (6 hrs)

Group V: Capstone Experience3 hours

- FRNH492 Capstone Senior Seminar (3 hrs)

Professional Studies42 hours

Pre-Admission Phase: The Learner

and the Community8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

and the Social Context.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology	12 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)	
FLAN412 Methods of Teaching Modern Languages in the Elementary Grades (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience:	12 hours
EDUC492 Student Teaching (12 hrs)	

Minor Requirements 20-26 hours
*Select a minor from the approved list of minors for secondary, K-12
and special education-secondary programs.*

Program Total 135-141 hours

Note:
*Each student must choose a writing intensive course as part of major completion
requirements. Consult your adviser for course options.*

French Major

Secondary Teacher Certification

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate in French, certification code FA, and, depending on the minor selected, an additional endorsement. The Michigan Test for Teacher Certification (MTTC) covering this field is #23, "French."

General Education Requirements 40 hours
*See page 46 for further information regarding General Education
requirements.*

Major Requirements 33 hours

Group I: Language Development	12 hours
FRNH343 French Composition (3 hrs)	
FRNH344 French Conversation (3 hrs)	
FRNH443 Advanced French Grammar and Composition (3 hrs)	
FRNH444 Advanced French Conversation (3 hrs)	
Group II: Literature	6 hours
FRNH341 Survey of French Literature (3 hrs)	
FRNH342 Survey of French Literature (3 hrs)	
Group III: Civilization and Culture	6 hours
<i>Selected from among the following four courses:</i>	
FRNH450 French Civilization in Film (3 hrs)	
FRNH466 French Speaking Cultures of the World (3 hrs)	
FRNH467 French Culture and Civilization (3 hrs)	
FRNH476 20th Century French Civilization (3 hrs)	
Group IV: Immersion Experience	6 hours
FRNH490 Intensive French Abroad (6 hrs)	
Group V: Capstone Experience	3 hours
FRNH492 Capstone Seminar in French (3 hrs)	

Professional Studies 39 hours
Pre-Admission Phase: The Learner
and the Community 8 hours
 EDPS322 Human Development and Learning (4 hrs)
 FETE201 Field Experience I (1 hr)
 SPGN251 Education of Students with Exceptionalities (3 hrs)

*The following courses require formal admission to the teacher
education program:*

Phase I: Curriculum, Assessment and the Social Context	10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE302 Field Experience II: Secondary (1 hr)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Content Methods, Literacy and Technology	9 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience:	12 hours
EDUC492 Student Teaching (12 hrs)	

Minor Requirements 20-26 hours
*Select a minor from the approved list of minors for secondary, K-12
and special education-secondary programs.*

Program Total 132-138 hours

Note:
*Each student must choose a writing intensive course as part of major completion
requirements. Consult your adviser for course options.*

German Language and Literature Major

K-12 Teacher Certification

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for the Michigan Department of Education K-12 Provisional Certificate in German, certification code FB. The Michigan Test for Teacher Certification (MTTC) covering this field is #24, "German."

General Education Requirements 40 hours
*See page 46 for further information regarding General Education
requirements.*

Major Requirements 33 hours

Group I: Language Development	12 hours
GERN343 German Composition on Cultures and Civilization (3 hrs)	
GERN344 Principles of German Phonetics and Conversation (3 hrs)	
GERN443 German Syntax and Advanced Composition (3 hrs)	
GERN444 Advanced German Conversation (3 hrs)	
Group II: Literature	6 hours
GERN341 Survey of German Literature (3 hrs)	
GERN342 Survey of German Literature (3 hrs)	
Group III: Culture	6 hours
GERN366 The Cultures of German-Speaking Europe (3 hrs)	
GERN428 German Literature and Film from 1945 to the Present (3 hrs)	
Group IV: Immersion Experience	6 hours
GERN490 Intensive German in Europe (6 hrs)	

Group V: Capstone Senior Seminar.....	3 hours
GERN492 Senior Capstone Seminar in German (3 hrs)	
Professional Studies	42 hours
Pre-Admission Phase: The Learner and the Community	8 hours
EDPS322 Human Development and Learning (4 hrs)	
FETE201 Field Experience I (1 hr)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
<i>The following courses require formal admission to the teacher education program:</i>	
Phase I: Curriculum, Assessment and the Social Context.....	10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE302 Field Experience II: Secondary (1 hr)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Content Methods, Literacy and Technology	12 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)	
FLAN412 Methods of Teaching Modern Languages in the Elementary Grades (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience:	12 hours
EDUC492 Student Teaching (12 hrs)	
Minor Requirements	20-26 hours
Program Total	135-141 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

German Language and Literature Major

Secondary Teacher Certification

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for the Michigan Department of Education Secondary Provisional Certificate in German, certification code FB. The Michigan Test for Teacher Certification (MTTC) covering this field is #24, "German."

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Major Requirements.....	33 hours
Group I: Language Development	12 hours
GERN343 German Composition on Cultures and Civilization (3 hrs)	
GERN344 Principles of German Phonetics and Conversation (3 hrs)	
GERN443 German Syntax and Advanced Composition (3 hrs)	
GERN444 Advanced German Conversation (3 hrs)	

Group II: Literature	6 hours
GERN341 Survey of German Literature (3 hrs)	
GERN342 Survey of German Literature (3 hrs)	
Group III: Culture	6 hours
GERN366 The Cultures of German-Speaking Europe (3 hrs)	
GERN428 German Literature and Film from 1945 to the Present (3 hrs)	
Group IV: Immersion Experience	6 hours
GERN490 Intensive German in Europe (6 hrs)	
Group V: Capstone Senior Seminar.....	3 hours
GERN492 Senior Capstone Seminar in German (3 hrs)	
Professional Studies	39 hours
Pre-Admission Phase: The Learner and the Community	8 hours
EDPS322 Human Development and Learning (4 hrs)	
FETE201 Field Experience I (1 hr)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
<i>The following courses require formal admission to the teacher education program:</i>	
Phase I: Curriculum, Assessment and the Social Context.....	10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE302 Field Experience II: Secondary (1 hr)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Content Methods, Literacy and Technology	9 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience	12 hours
EDUC492 Student Teaching (12 hrs)	
Minor Requirements	20-26 hours
<i>Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.</i>	
University Elective Courses	0 hours
Program Total	132-138 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

University Elective Courses

Program Total

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Japanese Language and Culture Teaching Major

K-12 Teacher Certification

Depending on initial placement, students may need to take up to 16 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education K-12 Provisional Certificate in Japanese, certification code FL. The Michigan Test for Teacher Certification (MTTC) covering this field has not yet been developed.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Group I: Language Development18 hours

- JPNE343 Japanese Composition (3 hrs)
- JPNE344 Japanese Conversation (3 hrs)
- JPNE361 Japanese for International Trade (3 hrs)
- JPNE444 Advanced Japanese Conversation (3 hrs)
- JPNE446 Business Japanese I (3 hrs)
- JPNE447 Business Japanese II (3 hrs)

Group II: Literature3 hours

- JPNE445 Survey of Japanese Literature (3 hrs)

Group III: Civilization and Culture3 hours

- Choose one from the following:*
- ANTH385 Culture of Japan (3 hrs)
 - JPNE448 Readings on Japanese Culture (3 hrs)

Group IV: Immersion Experience6 hours

- JPNE490 Intensive Japanese Abroad (6 hrs)

Group V: Capstone Seminar.....3 hours

- JPNE494 Seminar in Japanese Studies (3 hrs)

Professional Studies42 hours

Pre-Admission Phase: The Learner and the Community.....8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology12 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)
- FLAN412 Methods of Teaching Modern Languages in the Elementary Grades (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience.....12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-26 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total.....135-141 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Spanish Major Teaching

K-12 Teacher Certification

Depending on initial placement, students may need to take up to 24 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language

study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education K-12 Provisional Certificate in Spanish, certification code FF, and, depending on the minor selected, an additional endorsement. The Michigan Test for Teacher Certification (MTTC) covering this field is #28, "Spanish."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours

Group I: Language Development12 hours

- SPNH343 Spanish Grammar and Composition (3 hrs)
- SPNH344 Spanish Conversation and Composition (3 hrs)
- SPNH443 Advanced Spanish Grammar and Composition (3 hrs)
- SPNH444 Advanced Spanish Conversation and Composition (3 hrs)

Group II: Literature6 hours

- SPNH342 Great Works of Spanish Literature (3 hrs)
- SPNH352 Great Works of Spanish-American Literature (3 hrs)

Group III: Civilization and Culture6 hours

- SPNH301 The Cultures of Spain (3 hrs)
- SPNH302 The Cultures of Spanish America (3 hrs)

Group IV: Immersion Experience6 hours

- SPNH490 Intensive Spanish Abroad (6 hrs)

Group V: Capstone Experience3 hours

- SPNH492 Capstone Senior Seminar (3 hrs)

Professional Studies42 hours

Pre-Admission Phase: The Learner and the Community.....8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology12 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)
- FLAN412 Methods of Teaching Modern Languages in the Elementary Grades (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience:.....12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-26 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total.....135-141 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Spanish Major Teaching

Secondary Teacher Certification

Depending on initial placement, students may need to take up to 24 additional credit hours of 100- and 200-level classes in the language before they can begin courses required in the major. Students with prior language study or knowledge will be placed at an appropriate level in consultation with an advising coordinator.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate in Spanish, certification code FF, and, depending on the minor selected, an additional endorsement. The Michigan Test for Teacher Certification (MTTC) covering this field is #28, "Spanish."

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements..... 33 hours

Group I: Required Language

Development Courses.....12 hours

- SPNH343 Spanish Grammar and Composition (3 hrs)
- SPNH344 Spanish Conversation and Composition (3 hrs)
- SPNH443 Advanced Spanish Grammar and Composition (3 hrs)
- SPNH444 Advanced Spanish Conversation and Composition (3 hrs)

Group II: Required Literature Courses..... 6 hours

- SPNH342 Great Works of Spanish Literature (3 hrs)
- SPNH352 Great Works of Spanish-American Literature (3 hrs)

Group III: Required Civilization

and Culture Courses..... 6 hours

- SPNH301 The Cultures of Spain (3 hrs)
- SPNH302 The Cultures of Spanish America (3 hrs)

Group IV: Required Immersion Experience..... 6 hours

- SPNH490 Intensive Spanish (6 hrs)

Group V: Required Capstone Seminar 3 hours

- SPNH492 Senior Seminar in Spanish (3 hrs)

Professional Studies39 hours

Pre-Admission Phase: The Learner

and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

and the Social Context.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience:12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-26 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total.....132-138 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Group Minor in Teaching English as a Second Language

Required Courses24 hours

LNGE202 Grammar for ESL Teachers (3 hrs)

LNGE223 Introduction to Language (3 hrs)

One course from the following:

LNGE240 Linguistic and Cultural Diversity in the U.S. (3 hrs)

LNGE242 Linguistic and Cultural Diversity: Global Englishes (3 hrs)

LNGE325 Second Language Acquisition (3 hrs)

TSLN330 TESOL Methodology: Literacy (3 hrs)

TSLN332 TESOL Methodology: Listening and Speaking (3 hrs)

TSLN410 TESOL Methodology: Content-Based Approaches (3 hrs)

TSLN420 SLA Testing and Assessment (3 hrs)

Minor Total 24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Classical Studies Minor

Required Courses 12 hours

ART340 History of Classical Art (3 hrs)

HIST323 Greek History (3 hrs)

HIST324 Roman History (3 hrs)

PHIL330 History of Philosophy: Ancient (3 hrs)

+Restricted Elective Courses12 hours

One of the following groups:

Group A (Greek Language)12 hours

GREK101 Beginning Ancient Greek I (3 hrs)

GREK102 Beginning Ancient Greek II (3 hrs)

GREK201 Intermediate Ancient Greek I (3 hrs)

GREK202 Intermediate Ancient Greek II (3 hrs)

Group B (Latin Language).....12 hours

LATN101 Beginning Latin I (3 hrs)

LATN102 Beginning Latin II (3 hrs)

LATN201 Intermediate Latin I (3 hrs)

LATN202 Intermediate Latin II (3 hrs)

Group C (Classical Culture and Heritage)12 hours

Choose 12 hours from the following:

CLAS106 Rome and America (3 hrs)

CLAS181 The Legacy of Greece (3 hrs)

CLAS301 Classical Mythology (3 hrs)

CLAS321/HIST321/WGST321 Women and Gender in the Ancient World (3 hrs)

HIST302 Near Eastern and Western Religions (3 hrs)

HIST327 Europe in Early Middle Ages 400-1050 (3 hrs)

HIST328 Europe in the Late Middle Ages 1050-1400 (3 hrs)

HIST330 Europe in the Renaissance and Reformation (3 hrs)

LING205 English Words (3 hrs)

LITR351 World Mythology (3 hrs)

LNGE134 Etymology (3 hrs)

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.
†Certain independent study and special topics courses may be counted as restricted elective courses with the approval of the advising coordinator.

English as a Second Language for Non-native Speakers of English Minor

This minor is limited to international students who are nonnative speakers of English and conditionally admitted to the University on the basis of English language proficiency. It is administered jointly by the Department of Foreign Languages and Bilingual Studies and the Department of English Language and Literature.

Students who have placed in the 300-level ESL classes will complete all of the following required courses. Students who have placed at the 400-level will begin this minor by taking ESLN412 Academic ESL Writing, ESLN414 Academic ESL Reading and ESLN416 Academic ESL Speaking and Listening. These students must choose six credit hours from the restricted elective courses or other courses with the permission of the adviser.

Required Courses21 hours

ENGL225 Writing in a Changing World (3 hrs)

ENGL326 Research Writing (3 hrs)

One course from the following:

ESLN310 Advanced ESL Grammar (3 hrs)

ESLN312 Advanced ESL Writing (3 hrs)

One course from the following:

ESLN314 Advanced ESL Reading (3 hrs)

ESLN316 Advanced ESL Speaking and Listening (3 hrs)

ESLN412 Academic ESL Writing (3 hrs)

ESLN414 Academic ESL Reading (3 hrs)

ESLN416 Academic ESL Speaking and Listening (3 hrs)

Restricted Elective Courses 3 hours

One course from the following:

CTAC224 Public Speaking (3 hrs)

CTAC350 Persuasion (3 hrs)

CTAC356 Argumentation and Debate (3 hrs)

CTAC359 Small Group Communication (3 hrs)

LING201 An Introduction to Linguistics (3 hrs)

LING402 Modern English Grammar (3 hrs)

Other English language or linguistics course (written permission required) (3 hrs)

Other speech communication course (written permission required) (3 hrs)

Other advanced (speech) courses not including theatre arts courses, with written permission from the ESL coordinator

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Business French Minor

Students minoring in business French are eligible to take the examinations listed under the major in business French.

Required Courses18 hours

FRNH343 French Composition (3 hrs)

FRNH344 French Conversation (3 hrs)

FRNH361 French for International Trade (3 hrs)

FRNH444 Advanced French Conversation (3 hrs)

FRNH446 Business French I (3 hrs)

FRNH447 Business French II (3 hrs)

Restricted Elective Courses 2 hours

Two hours in French at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Business German Minor

Examinations listed under the major in business German also may be taken by students minoring in this subject.

Required Courses12 hours

One course from the following:

GERN341 Survey of German Literature (3 hrs)

GERN342 Survey of German Literature (3 hrs)

GERN361 German for International Trade (3 hrs)

GERN443 German Syntax and Advanced Composition (3 hrs)

One course from the following:

GERN446 Business German I (3 hrs)

GERN447 Business German II (3 hrs)

Restricted Elective Courses 8 hours

Eight hours in German at any level selected in consultation with an adviser.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Business Spanish Minor

Examinations listed under the major in business Spanish may be taken by students minoring in this subject.

Language proficiency in both Spanish and English is required; proficiency will be determined by examination.

Required Courses12 hours

One culture course from the following:

SPNH301 The Cultures of Spain (3 hrs)

SPNH302 The Cultures of Spanish America (3 hrs)

One literature course from the following:

SPNH342 Great Works of Spanish Literature (3 hrs)

SPNH352 Great Works of Spanish-American Literature (3 hrs)

SPNH361 Spanish for International Trade (3 hrs)

SPNH446 Business Spanish (3 hrs)

Restricted Elective Courses 8 hours

Eight hours in Spanish at any level selected in consultation with an adviser.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

French Language Minor

Required Courses12 hours

FRNH343 French Composition (3 hrs)

FRNH344 French Conversation (3 hrs)

FRNH443 Advanced French Grammar and Composition (3 hrs)

FRNH444 Advanced French Conversation (3 hrs)

Restricted Elective Courses 8 hours
Eight hours in French at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

French Language and Literature Minor

Required Courses 12 hours
FRNH341 Survey of French Literature (3 hrs)
FRNH342 Survey of French Literature (3 hrs)
FRNH343 French Composition (3 hrs)
FRNH344 French Conversation (3 hrs)

Restricted Elective Courses 8 hours
Eight hours in French at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

French Literature Minor

Required Courses 12 hours
FRNH341 Survey of French Literature (3 hrs)
FRNH342 Survey of French Literature (3 hrs)
Courses in French literature at the 400-level (6 hrs)

Restricted Elective Courses 8 hours
Eight hours in French at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

German Language Minor

Required Courses 12 hours
GERN343 German Composition on Cultures and Civilization (3 hrs)
GERN344 Principles of German Phonetics and Conversation (3 hrs)
GERN443 German Syntax and Advanced Composition (3 hrs)
GERN444 Advanced German Conversation (3 hrs)

Restricted Elective Courses 8 hours
Eight hours in German at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

German Language and Literature Minor

Required Courses 12 hours
GERN341 Survey of German Literature (3 hrs)
GERN342 Survey of German Literature (3 hrs)
GERN343 German Composition on Cultures and Civilization (3 hrs)
GERN344 Principles of German Phonetics and Conversation (3 hrs)

Restricted Elective Courses 8 hours
Eight hours in German at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

German Literature Minor

Required Courses 12 hours
GERN341 Survey of German Literature (3 hrs)
GERN342 Survey of German Literature (3 hrs)
Courses in German literature at the 400-level (6 hrs)

Restricted Elective Courses 8 hours
Eight hours in German at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Japanese Language Minor

Required Courses 12 hours
JPNE343 Japanese Composition (3 hrs)
JPNE344 Japanese Conversation and Composition (3 hrs)
JPNE361 Japanese for International Trade (3 hrs)
JPNE444 Advanced Japanese Conversation (3 hrs)

Restricted Elective Courses 8 hours
Eight hours in Japanese at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Spanish Culture Minor

Required Courses 12 hours
SPNH301 The Cultures of Spain (3 hrs)
SPNH302 The Cultures of Spanish America (3 hrs)
Six hours in Spanish at the 300-level or above (6 hrs)

Restricted Elective Courses 8 hours
Eight hours in Spanish at any level selected in consultation with an adviser.

Minor Total 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Spanish Language Minor

Required Courses12 hours
 SPNH343 Spanish Grammar and Composition (3 hrs)
 SPNH344 Spanish Conversation and Composition (3 hrs)
 SPNH443 Advanced Spanish Grammar and Composition (3 hrs)
One course from the following:
 SPNH444 Advanced Spanish Conversation and
 Composition (3 hrs)
 Additional three credits in Spanish at the 300-level
 or above (3 hrs)

Restricted Elective Courses 8 hours
*Eight hours in Spanish at any level selected in consultation with
 an adviser.*

Minor Total20 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Spanish Literature Minor

Required Courses12 hours
Two courses from the following:
 SPNH341 Survey of Spanish Literature (3 hrs)
 SPNH342 Great Works of Spanish Literature (3 hrs)
 SPNH351 Survey of Spanish-American Literature (3 hrs)
 SPNH352 Great Works of Spanish-American Literature (3 hrs)
 Six hours in Spanish at the 300-level or above

Restricted Elective Courses 8 hours
*Eight hours in Spanish at any level selected in consultation with
 an adviser.*

Minor Total20 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Bilingual-Bicultural Education Spanish-English Minor

Elementary, Secondary, K-12, Special Education-Elementary and
 Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program re-
 quirements, qualifies the student for recommendation for endorsement
 in bilingual Spanish, certification code YF. The Michigan Test for Teacher
 Certification (MTTC) covering this field is #70, "Bilingual Spanish."

Language proficiency in both Spanish and English as determined by
 examination.

Required Courses15 hours
 FLAN421 History and Theory of Bilingual Education (3 hrs)
 FLAN422 Teaching Hispanic Culture and Language (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)
 TSLN410 TESOL Methodology: Content-Based Approaches (3 hrs)

Restricted Elective Courses 9 hours
Nine hours from the following:
 ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 FLAN215 The Cultures of Mexican-Americans and Cubans in
 the United States (3 hrs)
 GEOG321 Geography of Latin America (3 hrs)
 HIST457 History of Mexico (3 hrs)

LNGE223 Introduction to Language (3 hrs)
 LING201 An Introduction to Linguistics (3 hrs)
 LING401 Introduction to Linguistic Science (3 hrs)
 LING402 Modern English Grammar (3 hrs)
 PSY340 Psychological Perspectives on Prejudice and
 Discrimination (3 hrs)
 SOCL214/ANTH214 U.S. Racial and Cultural Minorities (3 hrs)
 SPNH443 Advanced Spanish Grammar and Composition (3 hrs)
 SPNH444 Advanced Spanish Conversation and
 Composition (3 hrs)

Eight credit hours of student teaching must be with English-speaking pu-
 pils and four credit hours of student teaching must be in bilingual education.

Minor Total24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

French Language Minor

Elementary, Secondary, Special Education-Elementary and Special
 Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program re-
 quirements, qualifies the student for recommendation for endorsement in
 French, certification code FA. The Michigan Test for Teacher Certification
 (MTTC) covering this field is #23, "French."

Required Courses27 hours
Group I: Language Development12 hours
 FRNH343 French Composition (3 hrs)
 FRNH344 French Conversation (3 hrs)
 FRNH443 Advanced French Grammar and Composition (3 hrs)
 FRNH444 Advanced French Conversation (3 hrs)
Group II: Literature 3 hours
Choose one from the following:
 FRNH341 Survey of French Literature (3 hrs)
 FRNH342 Survey of French Literature (3 hrs)
Group III: Culture..... 3 hours
Choose one from the following:
 FRNH450 French Civilization in Film (3 hrs)
 FRNH466 French Speaking Cultures of the World (3 hrs)
 FRNH467 French Culture and Civilization (3 hrs)
 FRNH476 20th Century French Civilization (3 hrs)
Group IV: Immersion Experience 6 hours
 FRNH490 Intensive French Abroad (6 hrs)

Secondary Methods Requirement 3 hours
 FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)

Restricted Elective Courses 8 hours
*Eight hours in French at any level selected in consultation with
 an adviser.*

Minor Total35 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

German Language Minor

Elementary, Secondary, Special Education-Elementary and Special
 Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program re-
 quirements, qualifies the student for recommendation for endorsement in
 German, certification code FB. The Michigan Test for Teacher Certification
 (MTTC) covering this field is #24, "German."

Required Courses	27 hours
Group I: Language Development	12 hours
GERN343 German Composition on Cultures and Civilization (3 hrs)	
GERN344 Principles of German Phonetics and Conversation (3 hrs)	
GERN443 German Syntax and Advanced Composition (3 hrs)	
GERN444 Advanced German Conversation (3 hrs)	
Group II: Literature	3 hours
<i>One of the following required, three-credit literary survey courses:</i>	
GERN341 Survey of German Literature (3 hrs)	
GERN 342 Survey of German Literature (3 hrs)	
Group III: Culture.....	3 hours
GERN366 The Cultures of German-Speaking Europe (3 hrs)	
Group IV: Immersion Experience	6 hours
GERN490 Intensive German in Europe (6 hrs)	
Secondary Methods Requirement	3 hours
FLAN411 Theory and Methods of Modern Language Teaching (3 hrs)	

Minor Total27 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Spanish Language Minor

Elementary, Secondary, Special Education-Elementary and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in Spanish, certification code FF. The Michigan Test for Teacher Certification (MTTC) covering this field is #28, "Spanish."

Required Courses	27 hours
Group I: Language Development.....	12 hours
SPNH343 Spanish Grammar and Composition (3 hrs)	
SPNH344 Spanish Conversation and Composition (3 hrs)	
SPNH443 Advanced Spanish Grammar and Composition (3 hrs)	
SPNH444 Advanced Spanish Conversation and Composition (3 hrs)	
Group II: Literature.....	3 hours
<i>Choose one from the following:</i>	
SPNH342 Great Works of Spanish Literature (3 hrs)	
SPNH352 Great Works of Spanish-American Literature (3 hrs)	
Group III: Culture.....	3 hours
<i>Choose one from the following:</i>	
SPNH301 The Cultures of Spain (3 hrs)	
SPNH302 The Cultures of Spanish America (3 hrs)	
Group IV: Immersion Experience	6 hours
SPNH490 Intensive Spanish (6 hrs)	
Group V: Secondary Methods	3 hours
FLAN411 Theory and Methods in Modern Language (3 hrs)	

Minor Total27 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Department of Geography and Geology

Address: 205 Strong
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Web site: www.emich.edu/public/geo/welcome.html

See pages 293, 300, and 304 for course descriptions.

The Department of Geography and Geology's programs are designed to enhance student understanding and skills through courses having both theoretical and applied content. Where appropriate, students are directed to field and laboratory courses, which are important elements in all department programs. Internship and cooperative education opportunities are also encouraged.

The geology program includes a field camp. To support and encourage computer literacy in the department's multiple disciplines, there is a Geographic Information Systems and Computer Mapping Laboratory. Among the programs listed below, the Department of Geography and Geology collaborates with other departments on the area studies, language and international trade, public administration, travel and tourism and urban and regional planning programs. The department also provides teacher preparation courses to serve pre-service teachers.

Department faculty regularly participate in the Honors College. Department students often contribute original work to the Undergraduate Symposium.

Four student groups are associated with department programs: the Geo Club, Preservation Eastern, the Planning Awareness Club of Eastern (PLACE) and the Travel and Tourism Student Association.

Earth Science Major

The earth science major is designed for those interested in pursuing a career as an earth science technician or interested in combining a background in earth science with other fields, including surveying and spatial analysis or even journalism and law. Students pursuing careers as professional earth scientists or considering graduate studies in this area should follow the Geology Major Professional Concentration and carefully select elective courses within that program, in consultation with an adviser, to provide complimentary training in either the atmosphere, hydrosphere, or biosphere, or some combination thereof, depending on the student's specific area of interest. Numerous minors compliment the earth science major. These include, but are not limited to, the following: coastal environments, environmental analysis, chemistry, biology, physics and math.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30-32 hours
Required Courses20 hours
 ESSC110 The Dynamic Earth System (4 hrs)
 ESSC111 The Earth System Through Time (4 hrs)
 ESSC212 Weather, Climate and the Earth System (3 hrs)
 ESSC229 Rocks and Minerals (3 hrs)
 ESSC320 Oceanography (3 hrs)
 ESSC324 Weather (3 hrs)
Restricted Elective Courses10-12 hours
Ten to twelve hours from the following:
 ESSC325 Geomorphology (4 hrs)
 ESSC326 Structural Geology (4 hrs)
 ESSC327 Soil Science (3 hrs)
 ESSC330 Sedimentology and Stratigraphy (4 hrs)

ESSC331 Paleontology (4 hrs)
ESSC370 Glacial Geology (4 hrs)
ESSC424 Climatology (3 hrs)
ESSC425 Severe and Unusual Weather (3 hrs)
GEOG476 Advanced Geographic Information Systems (3 hrs)

Minor Requirements 20 hours
University Elective Courses 32-34 hours
Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Geography Major

The geography major includes the study of physical landscapes, their origins and the processes that alter them; the imprint of human activity on the earth's surface; the complex relationships among places; and the application of technology to human resource identification, conservation and management.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 33-34 hours
Required Courses 18 hours

ESSC110 The Dynamic Earth System (4 hrs)
ESSC227 Topographic Maps (2 hrs)
GEOG107 Introduction to Geography (3 hrs)
GEOG110 World Regions (3 hrs)
GEOG276 Principles of Geographic Information Systems (3 hrs)

One course from the following:

GEOG100 Human Geosciences (3 hrs)
GEOG235 Economic Geography (3 hrs)
GEOG360 Cultural Geography (3 hrs)

Specialization Courses 9-10 hours

Three courses from one of the following areas of specialization:

Geographic Techniques
ESSC303 Field Geography (3 hrs)
ESSC476 Geographic Information Systems (3 hrs)
ESSC485 Introduction to Remote Sensing (3 hrs)

Physical Geography

ESSC200 Introduction to Hydrology (3 hrs)
ESSC250 Introduction to Coastal Processes (3 hrs)
ESSC320 Oceanography (3 hrs)
ESSC324 Weather (3 hrs)
ESSC325 Geomorphology (4 hrs)
ESSC327 Soil Sciences (3 hrs)
ESSC350 Biogeography (3 hrs)
ESSC424 Climatology (3 hrs)
ESSC425 Severe and Unusual Weather (3 hrs)
ESSC450 Lake and Coastal Management (3 hrs)

Human Geography

GEOG212 Geography of Travel and Tourism (3 hrs)
GEOG332 Urban Geography (3 hrs)
GEOG333 Settlement Geography (3 hrs)
GEOG361 Geography of Population (3 hrs)
GEOG441 Transportation Geography and Planning (3 hrs)
GHPR335 Historic Preservation (3 hrs)
GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Regional Geography

GEOG314 Geography of Russia and Neighboring States (3 hrs)

GEOG318 Geography of Asia (3 hrs)
GEOG319 Geography of Europe (3 hrs)
GEOG320 Geography of the United States and Canada (3 hrs)
GEOG321 Geography of Latin America (3 hrs)
GEOG322 Geography of Africa (3 hrs)

Restricted Elective Courses 6 hours
Select two departmental courses outside of the selected area of specialization.

Minor Requirements 20 hours
University Elective Courses 30-31 hours
Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Geology Major — General Geology Concentration

This concentration is for those who seek a general liberal arts education in geology or who are interested in a career combining geology with fields such as business, patent law, technical writing or industrial health and safety. Students planning to pursue a career as a professional geologist or who are interested in graduate training in geology should elect the professional concentration.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 32 hours

ESSC110 The Dynamic Earth System (4 hrs)
ESSC111 The Earth System Through Time (4 hrs)
ESSC228 Mineralogy (4 hrs)
ESSC325 Geomorphology (4 hrs)
ESSC326 Structural Geology (4 hrs)
ESSC329 Igneous and Metamorphic Petrology (4 hrs)
ESSC330 Sedimentology and Stratigraphy (4 hrs)
ESSC331 Paleontology (4 hrs)

Minor Requirements 20 hours
University Elective Courses 32 hours
Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Geology Major — Hydrogeology Concentration

The hydrogeology concentration prepares students for graduate study or employment in the hydrogeology industry. It focuses on those aspects of geology and related sciences that pertain to the occurrence, movement, supply and quality of water. The program is designed to provide a strong technical base. Students will be educated in skills that are required to gather and process data with particular attention to water-related problems. The program includes a group minor composed of the required courses in mathematics, chemistry and physics. No other minor is needed to meet graduation requirements.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....65-67 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC200 Introduction to Hydrology (3 hrs)
- ESSC228 Mineralogy (4 hrs)
- ESSC325 Geomorphology (4 hrs)
- ESSC326 Structural Geology (4 hrs)
- ESSC329 Igneous and Metamorphic Petrology (4 hrs)
- ESSC330 Sedimentology and Stratigraphy (4 hrs)
- ESSC355 Field Geology I (2 hrs)
- ESSC356 Field Geology II (3 hrs)
- ESSC448 Hydrogeology (3 hrs)
- †Field Hydrogeology (2 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)

One course from the following:

- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY223 Mechanics and Sound (5 hrs)

One course from the following:

- PHY222 Electricity and Light (4 hrs)
- PHY224 Electricity and Light (5 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 17-19 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 †The hydrogeology field course may be selected from a number of universities with approval from a geology adviser.

Geology Major — Professional Concentration

This concentration provides the necessary background for students planning to become professional geologists. Students who successfully complete the curriculum are prepared to enter positions in industry or to undertake graduate study in geology. The program includes a group minor composed of the required courses in mathematics, chemistry and physics. No other minor is needed to meet graduation requirements.

Required courses and elective courses in science and mathematics are listed below. Additional general education and elective courses totaling 124 hours are required to complete a degree.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....69 hours

Required Courses 57-59 hours

- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM123/124 General Chemistry II with lab (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC228 Mineralogy (4 hrs)
- ESSC326 Structural Geology (4 hrs)
- ESSC329 Igneous and Metamorphic Petrology (4 hrs)
- ESSC330 Sedimentology and Stratigraphy (4 hrs)
- ESSC331 Paleontology (4 hrs)

- ESSC355 Field Geology I (2 hrs)
- ESSC356 Field Geology II (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)

One course from the following:

- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY223 Mechanics and Sound (5 hrs)

One course from the following:

- PHY222 Electricity and Light (4 hrs)
- PHY224 Electricity and Light (5 hrs)

Elective Courses 9-12 hours

Three courses from the following:

- ESSC320 Oceanography (3 hrs)
- ESSC325 Geomorphology (4 hrs)
- ESSC327 Soil Science (3 hrs)
- ESSC370 Glacial Geology (4 hrs)
- ESSC387 Cooperative Education in Geoscience (3 hrs)
- ESSC428 Optical Mineralogy (3 hrs)
- ESSC430 Petroleum Geology (3 hrs)
- ESSC439 Economic Geology (3 hrs)
- ESSC448 Hydrogeology (3 hrs)
- ESSC470 Quantitative Methods in Geography and Geology (3 hrs)
- ESSC476 Geographic Information Systems (3 hrs)
- ESSC487 Cooperative Education in Geoscience (3 hrs)
- ESSC488/489/490 Internship (4/5/6 hrs)
- ESSC499 Independent Study (undergraduate research) (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 15 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Geography Major — Tourism Geography Concentration

A geographic approach to tourism represents a distinctly different emphasis from the traditional business approach to the travel industry. The traditional business approach to travel necessarily sees an industry that must be efficiently managed for maximum sustainability of profit. The tourism geography approach, by contrast, focuses upon the physical and human geographic setting of the tourism experience. In addition, it focuses upon the intimate connection of the “internal” tourist experience with the “external” geography of the destination.

The tourism geography specialist asks, “Specifically, what geographic images and expectations might the tourist carry internally, images and expectations that will color their transactions with the physical setting and culture of that destination? Further, what planning and presentational means will most successfully allow the tourist to fully experience and remember the destination’s unique geography?”

This tourism geography approach represents an excellent example of applied human geography. Upon completion of the concentration, students will be well prepared as tourism geography specialists.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....57 hours

Required Courses30 hours

- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC227 Topographic Maps (2 hrs)
- ESSC276 Principles of Geographic Information Systems (3 hrs)

GEOG107 Introduction to Geography (3 hrs)
GEOG110 World Regions (3 hrs)
GEOG360 Cultural Geography (3 hrs)

One course from the following:

GEOG100 Human Geosciences (3 hrs)
GEOG235 Economic Geography (3 hrs)

One course from the following:

GEOG332 Urban Geography (3 hrs)
GEOG441 Transportation Geography and Planning (3 hrs)
GHPR335 Historic Preservation (3 hrs)
GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Two courses from the following:

GEOG314 Geography of Russia and Neighboring States (3 hrs)
GEOG318 Geography of Asia (3 hrs)
GEOG319 Geography of Europe (3 hrs)
GEOG320 Geography of the United States and Canada (3 hrs)
GEOG321 Geography of Latin America (3 hrs)
GEOG322 Geography of Africa (3 hrs)

Concentration Courses21 hours

GEOG112 Introduction to Travel and Tourism (3 hrs)
GEOG113 Foundations of Guest Service (3 hrs)
GEOG212 Geography of Travel and Tourism (3 hrs)
GEOG315 Travel and Tourism: The European Scene (3 hrs)
GEOG336 Tourism and Socioeconomic Development (3 hrs)
GEOG445 Cultural Tourism Resources (3 hrs)
GEOG446 Heritage Interpretation and Tourism (3 hrs)

Elective Courses6 hours

Six hours from the following:

COSC101 Computer Science Concepts and Practical Applications (3 hrs)
CTAC274 Intercultural Communication (3 hrs)
ESSC114 National Parks and Monuments (2 hrs)
ESSC324 Weather (3 hrs)
ESSC424 Climatology (3 hrs)
GEOG115 Observing the Human Landscape (2 hrs)
GEOG387/487 Cooperative Education in Geography (6 hrs) or GEOG488 Internship (4 hrs)
HLED210 American Red Cross (2 hrs)
HRM103 Introduction to the Hospitality Industry (2 hrs)
MKTG360 Principles of Marketing (3 hrs)
THRC100 Introduction to Recreation and Leisure (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses27 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Urban and Regional Planning Major

This interdisciplinary major studies the current situation in urban and regional planning, including land use, zoning, problems of urban growth and local decision-making. The program is designed to prepare students for positions in public planning agencies, private planning firms or other positions where planning skills are needed and relevant. Courses provide necessary skills to develop zoning ordinances, analyze site plans, critique general development plans, administer local planning regulations as well as prepare and review grant applications, environmental impact statements and policy planning programs.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....36 hours
Required Courses30 hours

GPLN215 Introduction to Urban and Regional Planning (3 hrs)
GPLN216 Readings in Urban Planning (2 hrs)
GPLN276 Principles of Geographic Information Systems (3 hrs)
GPLN306 Comprehensive Planning and Zoning (3 hrs)
GPLN401 Planning/Preservation Graphics (3 hrs)
GPLN410 Site Planning Studio (4 hrs)
GPLN435 History of Urban Form and Function (3 hrs)
GPLN495 Environmental Assessment and Planning (3 hrs)
PLSC270 Public Administration (3 hrs)
SOCL250 Social Statistics (3 hrs)

Restricted Elective Courses 6 hours

Six hours from the following selected in consultation with the advising coordinator:

ESSC303 Field Geography (3 hrs)
GEOG332 Urban Geography (3 hrs)
GEOG441 Transportation Geography and Planning (3 hrs)
GEOG405 Aerial Photo Interpretation (3 hrs)
GEOG376 Geographic Information Systems Analysis (3 hrs)
GEOG476 Advanced Geographic Information Systems (3 hrs)
GHPR335 Historic Preservation (3 hrs)
GLPN115 The American City (3 hrs)
GPLN409 Professional Practice for Planners (2 hrs)
GPLN387/487 Cooperative Education (3/3 hrs)
GPLN488/489/490 Internship (4/5/6 hrs)
GPLN497/498/499 Independent Study (1/2/3 hrs)

Minor Requirements20 hours

University Elective Courses28 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Earth Science Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in earth science/geology, certification code DH. The Michigan Test for Teacher Certification (MTTC) covering this field is # 20, "Geology/Earth Science." Consult a department adviser before you declare this major.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 16-17 hours

CHEM121/122 General Chemistry I with lab (4 hrs)
BIOL110 Introductory Biology I (5 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)

One course from the following:

MATH120 Calculus I (4 hrs)
MATH170 Elementary Statistics (3 hrs)

Major Requirements.....33 hours
Required Courses33 hours

ASTR205 Principles of Astronomy (4 hrs)
ESSC110 The Dynamic Earth System (4 hrs)

- ESSC111 The Earth System Through Time (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- ESSC229 Rocks and Minerals (3 hrs)
- ESSC320 Oceanography (3 hrs)
- ESSC324 Weather (3 hrs)
- ESSC331 Paleontology (4 hrs)
- †ESSC406 Nature of Science (1 hr)
- One course from the following:*
 - ESSC325 Geomorphology (4 hrs)
 - ESSC370 Glacial Geology (4 hrs)

Professional Studies39 hours

Pre-admission phase: The Learner and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

- Phase I: Curriculum, Assessment and the Social Context10 hours**
- CURR305 Curriculum and Methods: Secondary (3 hrs)
 - EDPS340 Introduction to Assessment and Evaluation (3 hrs)
 - FETE302 Field Experience II: Secondary (1 hr)
 - SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- ESSC347 Teaching Earth Science and Physical Geography (3 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-24 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 148-153 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†PHY406 or CHEM406 or BIOL406 may be substituted

Geography Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in geography, certification code CB. The Michigan Test for Teacher Certification (MTTC) covering this field is #08, "Geography."

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

- A course in economics, if not included in the minor (3 hrs)
- HIST102 Western Civilization, 1648 to World War I (3 hrs)
- HIST103 20th Century Civilization (3 hrs)

Major Requirements..... 30-31 hours

- Required Courses15 hours**
- ESSC110 The Dynamic Earth System (4 hrs)

- GEOG107 Introduction to Geography (3 hrs)
 - GEOG110 World Regions (3 hrs)
 - GEOG313 Geography of Michigan (2 hrs)
 - GEOG320 Geography of the United States and Canada (3 hrs)
- Restricted Elective Courses 15-16 hours**
- Regional Geography**

Two courses from the following:

- GEOG111 Regions and Resources (3 hrs)
- GEOG314 Geography of Russia and Neighboring States (3 hrs)
- GEOG318 Geography of Asia (3 hrs)
- GEOG319 Geography of Europe (3 hrs)
- GEOG321 Geography of Latin America (3 hrs)
- GEOG322 Geography of Africa (3 hrs)

One course from each of the following three areas: (9-10 hours total)

Geographic Techniques

- ESSC303 Field Geography (3 hrs)
- GEOG276 Principles of Geographic Information Systems (3 hrs)

Physical Geography

- ESSC200 Introduction to Hydrology (3 hrs)
- ESSC250 Introduction to Coastal Processes (3 hrs)
- ESSC320 Oceanography (3 hrs)
- ESSC324 Weather (3 hrs)
- ESSC325 Geomorphology (4 hrs)
- ESSC327 Soil Science (3 hrs)
- ESSC350 Biogeography (3 hrs)

Human Geography

- GEOG100 Human Geosciences (3 hrs)
- GEOG235 Economic Geography (3 hrs)
- GEOG332 Urban Geography (3 hrs)
- GEOG333 Settlement Geography (3 hrs)
- GEOG360 Cultural Geography (3 hrs)
- GEOG361 Geography of Population (3 hrs)
- GHPR335 Historic Preservation (3 hrs)

Professional Studies39 hours

Pre-admission phase: The Learner and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- HIST481 The Teaching of Social Studies (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-21 hours

Select a teaching minor from the following: economics, history, political science, psychology and sociology.

Program Total 138-140 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Cartography and Remote Sensing Minor

Cartography (map-making) is an ancient science designed to depict the earth's features and human activities. Today maps are made with several significant functions in mind to understand spatial phenomena, to store information and to analyze areal relationships.

Remote sensing uses space-age technology to sense, record and transmit information about the biosphere and atmosphere. Satellite imagery is an important element in collecting remote sensing data. Remote sensing information is often used in constructing modern maps, whether by hand or through the use of computer mapping and geographic information systems software.

The goal of the minor is to provide an employment track for undergraduates to entry-level positions as cartographers and remote sensing technicians. The minor provides balanced training between traditional cartographic work and computer maps. Emphasis is on map properties, spatial concepts, mapping techniques, drafting skills, graphic storage and display of data. A strongly recommended aspect of this training is the internship or cooperative education experience at nearby private and public agencies.

Required Courses 15 hours
 ESSC485 Introduction to Remote Sensing (3 hrs)
 GEOG405 Aerial Photograph Interpretation (3 hrs)
 GEOG276/SPLN276 Principles of Geographic Information Systems (3 hrs)
 GEOG376 Geographic Information Systems Analysis (3 hrs)
 GPLN401/GHPR401 Planning/Preservation Graphics (3 hrs)

Restricted Elective Courses 5 hours
Five hours from the following:
 ART165 Graphic Design for Non-majors (3 hrs)
 CADM231 Computer Graphic Programming for Industry (3 hrs)
 CMT121 Graphic Communication (3 hrs)
 CNST206 Surveying (3 hrs)
 ESSC227 Topographic Maps (2 hrs)
 ESSC355 Field Geology I (2 hrs)
 ESSC387/487 Cooperative Education in Geoscience (3 hrs)
 ESSC488/489/490 Internship (4/5/6 hrs)
 IS417 Systems Analysis and Design (3 hrs)
 MATH105 College Algebra (3 hrs)
 MATH107 Plane Trigonometry (2 hrs)
One course from the following:
 COSC145 Introduction to FORTRAN Programming (3 hrs)
 IS215 End-User Computing (3 hrs)

Minor Total 20 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Coastal Environments Minor

Required Courses: 16 hours
 ESSC110 The Dynamic Earth System (4 hrs)
 ESSC250 Introduction to Coastal Processes (3 hrs)
 ESSC320 Oceanography (3 hrs)
 ESSC350 Biogeography (3 hrs)
 ESSC450 Lake and Coastal Management (3 hrs)

Restricted Elective Courses 6 hours
Six hours from the following:
 ESSC208 Natural Environmental Hazards (3 hrs)
 ESSC325 Geomorphology (4 hrs)
 ESSC330 Sedimentology and Stratigraphy (4 hrs)
 ESSC495/GPLN495 Environmental Assessment and Planning (3 hrs)
 GEOG405 Aerial Photograph Interpretation (3 hrs)
 GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Students, in consultation with the minor adviser, may choose other elective courses not listed above.

Minor Total 22 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Earth Science Minor

Required Courses 17 hours
 ESSC110 The Dynamic Earth System (4 hrs)
 ESSC111 The Earth System Through Time (4 hrs)
 ESSC212 Weather, Climate and the Earth System (3 hrs)
 ESSC229 Rocks and Minerals (3 hrs)
 ESSC320 Oceanography (3 hrs)

Restricted Elective Courses 3-4 hours
One course from the following:
 ESSC324 Weather (3 hrs)
 ESSC325 Geomorphology (4 hrs)
 ESSC327 Soil Science (3 hrs)
 ESSC331 Paleontology (4 hrs)
 ESSC370 Glacial Geology (4 hrs)
 ESSC424 Climatology (3 hrs)
 ESSC425 Severe and Unusual Weather (3 hrs)
 ESSC476 Geographic Information Systems (3 hrs)

Minor Total 20-21 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Environmental Analysis Minor

Required Courses 24 hours
 ESSC470 Quantitative Methods in Geography and Geology (3 hrs)
 ESSC495/GPLN495 Environmental Assessment and Planning (3 hrs)
 ESSC459 Aquifer Analysis (3 hrs)
 ESSC460 Contaminant Hydrology (3 hrs)
One course from the following:
 ESSC250 Introduction to Coastal Processes (3 hrs)
 ESSC485 Introduction to Remote Sensing (3 hrs)
 GEOG376 Geographic Information Systems Analysis (3 hrs)
 GEOG405 Aerial Photograph Interpretation (3 hrs)
 GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Minor Total 24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Geographic Information Systems Minor

Required Courses 15 hours
 GEOG276/GPLN276 Principles of Geographic Information Systems (3 hrs)
 GEOG376 Geographic Information Systems Analysis (3 hrs)
 GEOG405 Aerial Photograph Interpretation (3 hrs)
 GEOG476 Advanced Geographic Information Systems (3 hrs)
 GEOG480 Geographic Information Systems Projects (3 hrs)

Restricted Elective Courses 6-7 hours

One course from the following:

- ESSC108 Earth Science (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- GEOG107 Introduction to Geography (3 hrs)

One course from the following:

- ESSC485 Remote Sensing (3 hrs)
- GEOG361 Population Geography (3 hrs)
- GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Minor Total 21-22 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Geography Minor

Required Courses 7 hours

- ESSC110 The Dynamic Earth System (4 hrs)
- GEOG110 World Regions (3 hrs)

Restricted Elective Courses 13 hours

Thirteen hours selected in consultation with a geography adviser.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Geology Minor

Required Courses 20 hours

- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC228 Mineralogy (4 hrs)
- ESSC326 Structural Geology (4 hrs)
- ESSC329 Igneous and Metamorphic Petrology (4 hrs)

Restricted Elective Courses 1 hour

One hour selected in consultation with a geology adviser.

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Historic Preservation Minor

Required Courses 23 hours

- ART429 History of American Architecture (3 hrs)
- GEOG360 Cultural Geography (3 hrs)
- GEOG332 Urban Geography (3 hrs)
- GEOG333 Settlement Geography (3 hrs)
- GHPR335 Historic Preservation (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)

Restricted Elective Courses 4-6 hours

Two courses from the following:

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ANTH150 Introductory Archeology (3 hrs)
- CNST201 Construction Systems (3 hrs)
- CNST228 Construction Drawing (3 hrs)
- GEOG235 Economic Geography (3 hrs)
- GEOG313 Geography of Michigan (2 hrs)
- GEOG345 Geography of Resorts (2 hrs)

- GPLN215 Introduction to Urban and Regional Planning (3 hrs)
 - GPLN401/GHPR401 Planning/Preservation Graphics (3 hrs)
 - HIST305 Native American History (3 hrs)
 - HIST313 Michigan History (3 hrs)
 - HIST362 United States Urban History (3 hrs)
 - IDE311 History of Interiors: Ancient-1800 (2 hrs)
 - IDE321 History of Interiors: 1800-Present (2 hrs)
 - PSY350 Environmental Psychology (3 hrs)
 - SOCL306 The Urban Community (3 hrs)
 - TEDU105 History of Industrial Technology (3 hrs)
- Students, in consultation with the program advisers, may choose other elective courses not listed above.

Minor Total 27-29 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Tourism Geography Minor

Required Courses 21-22 hours

- GEOG110 World Regions (3 hrs)
- GEOG112 Introduction to Travel and Tourism (3 hrs)
- GEOG113 Foundations of Guest Service (3 hrs)
- GEOG212 Geography of Travel and Tourism (3 hrs)
- GEOG445 Cultural Tourism Resources (3 hrs)
- GEOG446 Heritage Interpretation and Tourism (3 hrs)

One course from the following:

- ESSC108 Earth Science for non-science majors (4 hrs)
- GEOG315 Travel and Tourism: The European Scene (3 hrs)
- GEOG332 Urban Geography (3 hrs)
- GEOG336 Tourism and Socioeconomic Development (3 hrs)
- GEOG441 Transportation Geography and Planning (3 hrs)
- GHPR335 Historic Preservation (3 hrs)
- GPLN215 Introduction to Urban and Regional Planning (3 hrs)

Minor Total 21-22 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Urban and Regional Planning Minor

Required Courses 11 hours

- GPLN215 Introduction to Urban and Regional Planning (3 hrs)
- GPLN216 Readings in Urban Planning (2 hrs)
- GPLN306 Comprehensive Planning and Zoning (3 hrs)
- GPLN435 History of Urban Form and Function (3 hrs)

Restricted Elective Courses 9 hours

Nine hours from the following selected in consultation with the advising coordinator:

- ESSC303 Field Geography (3 hrs)
- GEOG332 Urban Geography (3 hrs)
- GEOG441 Transportation Geography and Planning (3 hrs)
- GEOG376 Geographic Information Systems Analysis (3 hrs)
- GHPR335 Historic Preservation (3 hrs)
- GPLN276 Principles of Geographic Information Systems (3 hrs)
- GPLN401 Planning/Preservation Graphics (3 hrs)
- GPLN409 Professional Practice for Planners (2 hrs)
- GPLN410 Site Planning Studio (4 hrs)
- GPLN495 Environmental Assessment and Planning (3 hrs)
- GPLN387 Cooperative Education (3/3 hrs)
- GPLN488/489/490 Internship (4/5/6 hrs)
- GPLN497/498/499 Independent Study (1/2/3 hrs)
- PLSC270 Public Administration (3 hrs)
- SOCL250 Quantitative Applications in Sociology (3 hrs)

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Earth Science Minor

Secondary, K-12 and Special
Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geology/earth science, certification code DH. The Michigan Test for Teacher Certification (MTTC) covering this field is #20, "Geology/Earth Science."

Required Courses22 hours

- ASTR205 Principles of Astronomy (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- ESSC229 Rocks and Minerals (3 hrs)
- ESSC320 Oceanography (3 hrs)
- †ESSC347 Teaching Earth Science and Physical Geography (3 hrs)
- *ESSC406 Nature of Science (1 hr)

Minor Total22-25 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

*PHY406 or CHEM406 or BIOL406 may be substituted.

†Only required if one of the following courses has not been taken: ESSC347, BIOL403, CHEM325 or PHYS325.

Geography Minor

Secondary, K-12 and Special
Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in geography, certification code CB. The Michigan Test for Teacher Certification (MTTC) covering this field is #08, "Geography."

Required Courses.....18 hours

- ESSC110 The Dynamic Earth System (4 hrs)
- GEOG107 Introduction to Geography (3 hrs)
- GEOG110 World Regions (3 hrs)
- GEOG313 Geography of Michigan (2 hrs)
- GEOG320 Geography of the United States and Canada (3 hrs)
- HIST481 The Teaching of Social Studies (3 hrs)

Elective Courses.....2-3 hours

Two or three additional hours in GEOG approved by the adviser.

Minor Total20-21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of History and Philosophy

Address: 701 Pray-Harrod
Phone: 734.487.1018
E-mail: lschott@emich.edu
Web site: www.emich.edu/history/

See pages 306 and 344 for course descriptions.

Through study in the History and Philosophy department, students can gain knowledge of past events and ideas, develop skills in analysis and evaluation, and prepare for success in a variety of positions in education or with local, state, national and international governmental and private agencies. Students will also develop a sound foundation for graduate study in the humanities or social studies, or in such applied fields as law, religion and business. Additional educational opportunities are offered regularly through overseas travel-study programs and other off-campus enrichment experiences.

The department also participates in offering honors courses, programs in public law and government, public administration, area studies, language and international trade, African American studies, technology and society and women's studies.

Graduate programs under the auspices of the department are the M.A. in history, the M.A. in social science and the M.A. in liberal studies with a concentration in social science and American culture. See the graduate catalog for program descriptions.

Area Studies Majors

The interdisciplinary area studies major helps students understand the background and specific problems of a world cultural or geopolitical area: Africa, Asia-far east, Latin America, Middle East and North Africa, or Russia and Eastern Europe. Courses drawn from several departments supply information on the area's economy, geography, history, politics, society and general cultural background. The program also provides a foundation for graduate work with an area of specialization or preparation for careers in government service or private business.

Students can also utilize independent study courses available through some departments for one, two or three hours of credit to be applied as elective credit in the major area. Majors are required to minor in one of the following: anthropology, economics, geography, history, political science or sociology; except Latin America majors who may, instead, elect a minor in Spanish culture, Spanish language or Spanish literature.

Area Studies Major — Africa

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Basic Courses9 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- GEOG110 World Regions (3 hrs)

Required Area Courses15 hours

- ANTH236 Peoples and Cultures of Africa (3 hrs)
- ECON385 Economic Development (3 hrs)
- GEOG322 Geography of Africa (3 hrs)
- HIST347 Sub-Saharan Africa to 1885 (3 hrs)
- PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)

Area Elective Courses6 hours

Six hours from the following:

- ANTH135 Introduction to Cultural Anthropology (3 hrs)

ANTH336 Social and Cultural Change (3 hrs)
 ECON370 Comparative Economic Systems (3 hrs)
 GEOG518 Problems of Sub-Saharan Africa (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)
 HIST348 20th-Century Africa (3 hrs)

Minor Requirements20 hours
 University Elective Courses34 hours
 Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Area Studies Major — Asia-Far East

General Education Requirements.....40 hours
 See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Basic Courses 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
 ECON202 Principles of Microeconomics (3 hrs)
 GEOG110 World Regions (3 hrs)

Required Area Courses..... 14 hours

ECON385 Economic Development (3 hrs)
 GEOG318 Geography of Asia (3 hrs)

One course from the following:

HIST441 The Far East to 1800 (3 hrs)
 HIST442 Modern China (3 hrs)
 HIST555 Studies in Far Eastern History (2 hrs)
 PLSC374 Asian Political Systems (3 hrs)

Area Elective Courses 7 hours

Seven hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ART421 History of Asian Art (3 hrs)
 HIST301 Religions of South and East Asia (3 hrs)
 HIST306 Hinduism (3 hrs)
 HIST307 Buddhism (3 hrs)
 HIST326 History and Geography of Modern Asia (6 hrs)
 HIST441 The Far East to 1800 (3 hrs)
 HIST442 Modern China (3 hrs)

Minor Requirements20 hours

University Elective Courses34 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Area Studies Major — Latin America

Students electing the Latin American area studies major are strongly urged to minor in Spanish language, literature or culture.

General Education Requirements.....40 hours
 See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Basic Courses 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
 ECON202 Principles of Microeconomics (3 hrs)

GEOG110 World Regions (3 hrs)

Required Area Courses 15 hours

ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 ECON385 Economic Development (3 hrs)
 GEOG321 Geography of Latin America (3 hrs)
 PLSC367 Latin American Politics (3 hrs)

One course from the following:

HIST355 Latin America: Colonial Period (3 hrs)
 HIST356 Latin America: National Period (3 hrs)
 HIST457 History of Mexico (3 hrs)

Area Elective Courses.....6 hours

Six hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ECON370 Comparative Economic Systems (3 hrs)
 GEOG317/HIST317 History and Geography of Spanish America (6 hrs)
 GEOG512 Middle America and the Caribbean World (2 hrs)
 GEOG513 South American Lands (2 hrs)
 HIST355 Latin America: Colonial Period (3 hrs)
 HIST356 Latin America: National Period (3 hrs)
 HIST457 History of Mexico (3 hrs)
 HIST560 Studies in Latin American History (2 hrs)
 SPNH302 The Cultures of Spanish America (3 hrs)
 SPNH351 Survey of Spanish-American Literature (3 hrs)
 SPNH352 Great Works of Spanish-American Literature (3 hrs)
 SPNH445 Spanish-American Prose (3 hrs)
 SPNH454 Modernism in Spanish America (3 hrs)

Minor Requirements20 hours

University Elective Courses34 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Area Studies Major — Middle East and North Africa

General Education Requirements.....40 hours
 See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Basic Courses 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
 ECON202 Principles of Microeconomics (3 hrs)
 GEOG110 World Regions (3 hrs)

Required Area Courses.....9 hours

ECON385 Economic Development (3 hrs)
 PLSC371 Government and Politics of the Middle East (3 hrs)

One course from the following:

HIST341 The Middle East, 1798 to the Present (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)

Area Elective Courses12 hours

Twelve hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH236 Peoples and Cultures of Africa (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ECON585 Economic Growth and Development (3 hrs)
 GEOG322 Geography of Africa (3 hrs)
 HIST302 Near Eastern and Western Religions (3 hrs)
 HIST339 Arab-Israeli Conflict (3 hrs)

HIST341 The Middle East, 1798 to the Present (3 hrs)
HIST342 North Africa, 1798 to the Present (3 hrs)
HIST543 Nationalism and Modernization in the Middle East and North Africa (3 hrs)
LITR351 World Mythology (3 hrs)

Minor Requirements20 hours
University Elective Courses34 hours
Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Area Studies Major — Russia and Eastern Europe

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours
Required Basic Courses9 hours

ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
GEOG110 World Regions (3 hrs)

Required Area Courses.....12 hours
GEOG314 Geography of Russia and Neighboring States (3 hrs)
HIST344 Russia since 1855 (3 hrs)
HIST547 19th-Century Ideological Background of the Russian Revolution (3 hrs)
PLSC361 Russian Politics in Transition (3 hrs)

Area Elective Courses.....9 hours

Nine hours from the following:
ECON370 Comparative Economic Systems (3 hrs)
GEOG316 History and Geography of Modern Europe (6 hrs)
GEOG516 Problems in Soviet Geography (3 hrs)
HIST332 Modern Europe 1815-1919
HIST333 Europe since 1919
HIST343 Russia to 1855
HIST550 20th-Century Russia
PLSC462 Russian Foreign Relations

Minor Requirements20 hours
University Elective Courses34 hours
Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

History Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours
Required Courses9 hours

HIST300 Researching and Writing History (3 hrs)
One course from the following:
HIST101 Western Civilization to 1648 (3 hrs)
HIST102 Western Civilization, 1648 to World War I (3 hrs)
HIST103 20th-Century Civilization (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)

Restricted Elective Courses15 hours

Six credit hours of history courses 300-level or above in two of the following areas and three hours in the remaining area. One course must be a Writing Intensive (WI) course. One of these courses must be designated as emphasizing “Historical Writing”; see a history adviser if you have questions.

A. United States and Canada (includes HIST303)
B. Europe
C. Africa, Asia, Latin America, History of Religions (HIST301, HIST302, HIST306, HIST307)

Elective Courses 6 hours

No more than four 100-level courses may be counted toward the major. HIST100 The Comparative Study of Religion and HIST481 The Teaching of Social Studies may not be counted toward the major.

Minor Requirements20 hours
University Elective Courses34 hours
Program Total 124 hours

Philosophy Major

The philosophy major provides basic knowledge in the general field of philosophy and strikes a balance between topical philosophical groups. The program supplements those in many other disciplines, such as teaching, literature, the performing arts and the sciences. A philosophy major also prepares students for graduate work in philosophy, law, theology, literature, political science and other related liberal arts subjects. It is a nonteaching major.

The philosophy major consists of 33 credit hours. 24 of those hours must be at the 200-level or above. Majors must satisfactorily complete at least one course in each of the following four core areas, with a minimum of twelve credit hours at the 300- or 400-level.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours
Students must select a minimum of three hours from each of the five core areas:

I. Logic and Reasoning3-9 hours

At least one course from the following:

†PHIL130 Introduction to Logic (3 hrs)
†PHIL120 Introduction to Critical Reasoning (3 hrs)
PHIL181 Logic and Model Theory (3 hrs)
PHIL281 Symbolic Logic (3 hrs)

II. History of Philosophy3-9 hours

At least one course from the following:

PHIL330 History of Philosophy: Ancient (3 hrs)
PHIL331 History of Philosophy: Modern (3 hrs)
PHIL332 History of Philosophy: 19th-Century (3 hrs)

III. Values.....3-24 hours

At least one course from the following:

PHIL212 Philosophy of Art (3 hrs)
PHIL220 Ethics (3 hrs)
PHIL221 Business Ethics (3 hrs)
PHIL223 Medical Ethics (3 hrs)
PHIL225 Political Philosophy (3 hrs)
PHIL260 Existentialism (3 hrs)
PHIL310 Aesthetics (3 hrs)
PHIL355 Philosophy of Law (3 hrs)
PHIL370 Philosophy and Narrative (3 hrs)
*PHIL426 Topics in Gender and Philosophy (3 hrs)

PHIL470 Contemporary European
Philosophy (3 hrs)
IV. Epistemology and Metaphysics 3-27 hours

At least one course from the following:

- PHIL215 Philosophy of Religion (3 hrs)
- PHIL325 Theory of Knowledge (3 hrs)
- PHIL375 Metaphysics (3 hrs)
- PHIL380 Philosophy of Science (3 hrs)
- PHIL390 Phenomenology (3 hrs)
- *PHIL426 Topics in Gender and Philosophy (3 hrs)
- PHIL442 Philosophy of Mind (3 hrs)
- PHIL460 Philosophy of Language (3 hrs)
- PHIL471 Early Analytic Philosophy (3 hrs)
- PHIL475 Philosophy of Mathematics (3 hrs)

V. Eastern/Global 3-9 hours

At least one course from the following:

- PHIL226 Feminist Philosophy (3 hrs)
- PHIL228 Global Ethics (3 hrs)
- PHIL291 Introduction to Asian Philosophy (3 hrs)
- PHIL391 Philosophy of Early China (3 hrs)

Restricted Elective Courses 18 hours

Special topic courses, independent study courses, or other courses listed above and not already taken to complete the required 33 hours.

Minor Requirements 20 hours

University Elective Courses 31 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Only one of PHIL100 Introduction to Philosophy or PHIL110 Philosophies of Life may be counted toward the major.

**This course satisfies either area III or IV, depending on its' specific content. It may only be used to satisfy one area requirement.*

†Only one of PHIL120 Introduction to Critical Reasoning or PHIL130 Introduction to Logic may be counted toward the major.

Social Science Major

The social science major requires a total of 36 credit hours, including elective courses, chosen from history, anthropology, sociology, economics, geography and political science.

The major must include at least eight hours in each of three areas from the seven areas of concentration listed below. Of the 36 hours, at least 14 must be in courses at the 300 level or above.

Students may not minor in any of the fields included in areas of concentration for their major.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 36 hours

Select three of the following areas:

I. World History 8-9 hours

One world history course at the 300-level or above (2-3 hrs)

Two courses from the following:

- HIST101 Western Civilization to 1648 (3 hrs)
- HIST102 Western Civilization, 1648 to World War I (3 hrs)
- HIST103 20th Century Civilization (3 hrs)
- HIST106 Asian and African Civilizations (3 hrs)

II. United States History 8-9 hours

HIST123 The United States to 1877 (3 hrs)

HIST124 The United States, 1877 to the Present (3 hrs)
One United States or Canadian history course at the 300-level or above (2-3 hrs)

III. Anthropology 8-9 hours

ANTH135 Introduction to Cultural Anthropology (3 hrs)

An anthropology course at the 300-level or above (3 hrs)
Any other anthropology course (2-3 hrs)

IV. Sociology 8-9 hours

SOCL105 Introductory Sociology (3 hrs)

A sociology course at the 300-level or above (3 hrs)
Any other sociology course (2-3 hrs)

V. Economics 8-9 hours

ECON201 Principles of Macroeconomics (3 hrs)

ECON202 Principles of Microeconomics (3 hrs)

An economics course at the 300-level or above (2-3 hrs)

VI. Geography 8-9 hours

GEOG110 World Regions (3 hrs)

A geography course at the 300-level or above (3 hrs)

Any other geography course (2-3 hrs)

VII. Political Science 8-9 hours

PLSC112/113 American Government (3 hrs)

A political science course at the 300-level or above (3 hrs)

Any other political science course (2-3 hrs)

Elective Courses 9-12 hours

Choose courses from any of the above areas of concentration listed to complete the required 36 hours, except HIST100 and HIST481.

Minor Requirements 20 hours

Students may not minor in any of the areas of concentration included in the major.

University Elective Courses 28 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

History Major

Secondary Teacher Certification

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in history, certification code CC and, depending on the minor selected, endorsement in, geography (CB), political science (CD), psychology (CE), sociology (CF), or social studies (RX). This program of study meets all requirements of the National Council for the Social Studies. The Michigan Test for Teacher Certification (MTTC) covering this field is #09, "History."

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 33-36 hours

Required Courses 21-24 hours

HIST123 The United States to 1877 (3 hrs)

HIST124 The United States, 1877 to the Present (3 hrs)

HIST300 Researching and Writing History (Required Writing Intensive) (3 hrs)

One course from the following:

GEOG107 Introduction to Geography (3 hrs)

GEOG110 World Regions (3 hrs)

One course from the following:

- ECON375 Economic History of the United States (3 hrs)
- HIST471 Social and Intellectual History of 19th-Century Europe (3 hrs)

See History adviser for more options

One option from the following:

Option I

- HIST109 World History to 1500 (3 hrs)
- HIST110 World History since 1500 (3 hrs)

Option II

- HIST101 Western Civilization to 1648 (3 hrs)
- HIST102 Western Civilization, 1648 to World War I (3 hrs)
- HIST103 20th-Century Civilization (3 hrs)

Elective Courses12 hours

Six hours of history courses 300-level or above in one of the following areas and three hours each in the remaining areas:

- A. United States and Canada
- B. Europe
- C. Africa, Asia, Latin America, History of Religions (HIST301 HIST302, HIST306, HIST307)

Professional Studies39 hours

Pre-Admission Phase: The Learner

and the Community8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

and the Social Context10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

Literacy and Technology9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- HIST481 The Teaching of Social Studies (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC492 Student Teaching (12 hrs)

Minor Requirements20-21 hours

Select from geography, political science, psychology, or sociology.

Program Total132-136 hours

Social Studies Group Major (with a Minor in Geography, History or Political Science)

Secondary Teacher Certification

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in social studies, certification code RX, and, depending on the minor selected, endorsement in, geography (CB), history (CC), or political science (CD). This program of study meets all requirements of the National Council for the Social Studies. The Michigan Test for Teacher Certification (MTTC) covering this field is #84, "Social Studies."

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major/Minor Requirements.....56-57 hours

Social Studies Major with a Geography Minor.....56-57 hours

Core Courses27 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- HIST109 World History to 1500 (3 hrs)
- HIST110 World History since 1500 (3 hrs)
- HIST123 The United States to 1877 (3 hrs)
- HIST124 The United States, 1877 to the Present (3 hrs)
- *HIST300 Researching and Writing History (3 hrs)
- PLSC112/113 American Government (3 hrs)
- PLSC301 The American Legal System (3 hrs)

Restricted Elective Courses9 hours

- One international/multicultural elective in economics, history or political science (3 hrs)
- Two electives from any of the four RX disciplines at any level (consult a social studies adviser) (6 hrs)

Geography Minor15 hours

- GEOG107 Introduction to Geography (3 hrs)
- GEOG110 World Regions (3 hrs)
- GEOG320 Geography of the United States and Canada (3 hrs)
- GEOG313 Geography of Michigan (2 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)

Elective Courses.....5-6 hours

- Two courses in GEOG approved by the Geography adviser (one must be a three credit hour class).

Social Studies Major with a History Minor57 hours

Core Courses24 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- GEOG107 Introduction to Geography (3 hrs)
- GEOG110 World Regions (3 hrs)
- GEOG320 Geography of the United States and Canada (3 hrs)
- *HIST300 Researching and Writing History (3 hrs)
- PLSC112/113 American Government (3 hrs)
- PLSC301 The American Legal System (3 hrs)

Restricted Elective Courses12 hours

- One international/multicultural elective in economics, geography, or political science (3 hrs)
- Three electives from any of the four RX disciplines at any level (consult a social studies adviser) (9 hrs)

History Minor21 hours

- HIST109 World History to 1500 (3 hrs)
 - HIST110 World History since 1500 (3 hrs)
 - HIST123 The United States to 1877 (3 hrs)
 - HIST124 The United States, 1877 to the Present (3 hrs)
- Three upper-level (300-400) history courses, one each in:
- A. U.S.
 - B. Europe
 - C. Rest of the World

Social Studies Major with a

Political Science Minor57 hours

Core Courses33 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- GEOG107 Introduction to Geography (3 hrs)
- GEOG110 World Regions (3 hrs)
- GEOG320 Geography of the United States and Canada (3 hrs)
- HIST109 World History to 1500 (3 hrs)
- HIST110 World History since 1500 (3 hrs)
- HIST123 The United States to 1877 (3 hrs)

HIST124 The United States, 1877 to the Present (3 hrs)
 *HIST300 Researching and Writing History (3 hrs)
 PLSC112/113 American Government (3 hrs)
Restricted Elective Courses 3 hours

One international/multicultural elective in economics, geography or history. (3 hrs)
 One electives from any of the four RX disciplines at any level (consult a social studies adviser) (3 hrs)

Political Science Minor 21 hours

PLSC301 The American Legal System (3 hrs)
Two courses from the following:
 PLSC210 Introduction to Political Analysis (3 hrs)
 PLSC211 Introduction to Comparative Government (3 hrs)
 PLSC212 Introduction to International Politics (3 hrs)
 PLSC213 Introduction to Political Thought (3 hrs)
 PLSC310 Methods of Political Research (3 hrs)

Four courses of restricted electives in political science to be chosen in consultation with a political science adviser

Professional Studies 39 hours

Pre-Admission Phase:

The Learner and the Community 8 hours

EDPS322 Human Development and Learning (4 hrs)
 FETE201 Field Experience I (1 hr)
 SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context 10 hours

CURR305 Curriculum and Methods: Secondary (3 hrs)
 EDPS340 Introduction to Assessment and Evaluation (3 hrs)
 FETE302 Field Experience II: Secondary (1 hr)
 SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology 9 hours

EDMT330 Instructional Applications of Media and Technology (2 hrs)
 FETE402 Field Experience III: Secondary (1 hr)
 HIST481 The Teaching of Social Studies (3 hrs)
 RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience 12 hours

EDUC492 Student Teaching (12 hrs)

Program Total 135-142 hours

Note:

* HIST300 is a required writing intensive course.

Area Studies Minor — Africa

Required Area Courses 15 hours

ANTH236 Peoples and Cultures of Africa (3 hrs)
 ECON385 Economic Development (3 hrs)
 GEOG322 Geography of Africa (3 hrs)
 HIST347 Sub-Saharan Africa to 1885 (3 hrs)
 PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)

Area Elective Courses 5 hours

Five hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ECON370 Comparative Economic Systems (3 hrs)
 GEOG518 Problems of Sub-Saharan Africa (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)
 HIST348 20th-Century Africa (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of area studies. No more than three of the seven courses in the minor may be chosen from a single discipline.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Area Studies Minor — Asia-Far East

Required Area Courses 14 hours

ECON385 Economic Development (3 hrs)
 GEOG318 Geography of Asia (3 hrs)

One course from the following:

HIST441 The Far East to 1800 (3 hrs)
 HIST442 Modern China (3 hrs)
 HIST555 Studies in Far Eastern History (2 hrs)
 PLSC374 Asian Political Systems (3 hrs)

Area Elective Courses 6 hours

Six hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ART421 History of Asian Art (3 hrs)
 HIST306 Hinduism (3 hrs)
 HIST307 Buddhism (3 hrs)
 HIST326 History and Geography of Modern Asia (3 hrs)
 HIST301 The Religions of South and East Asia (3 hrs)
 HIST441 The Far East to 1800 (3 hrs)
 HIST442 Modern China (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of area studies. No more than three of the seven courses in the minor may be chosen from a single discipline.

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Area Studies Minor — Latin America

Required Area Courses 15 hours

ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 ECON385 Economic Development (3 hrs)
 GEOG321 Geography of Latin America (3 hrs)

One course from the following:

HIST355 Latin America: Colonial Period (3 hrs)
 HIST356 Latin America: National Period (3 hrs)
 HIST457 History of Mexico (3 hrs)
 PLSC367 Latin American Politics (3 hrs)

Area Elective Courses 5 hours

Five hours from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 ANTH336 Social and Cultural Change (3 hrs)
 ECON370 Comparative Economic Systems (3 hrs)
 GEOG317/HIST317 History and Geography of Spanish America (3 hrs)
 GEOG512 Middle America and the Caribbean World (3 hrs)
 GEOG513 South American Lands (3 hrs)
 HIST355 Latin America: Colonial Period (3 hrs)
 HIST356 Latin America: National Period (3 hrs)
 HIST457 History of Mexico (3 hrs)

HIST560 Studies in Latin American History (3 hrs)
SPNH302 The Cultures of Spanish America (3 hrs)
SPNH351 Survey of Spanish-American Literature (3 hrs)
SPNH352 Great Works of Spanish-American Literature (3 hrs)
SPNH445 Spanish-American Prose (3 hrs)
SPNH454 Modernism in Spanish America (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of area studies. No more than three of the seven courses in the minor may be chosen from a single discipline.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Area Studies Minor — Middle East and North Africa

Required Area Courses 9 hours

ECON385 Economic Development (3 hrs)
One course from the following:
HIST341 The Middle East, 1798 to the Present (3 hrs)
HIST342 North Africa, 1798 to the Present (3 hrs)
PLSC371 Government and Politics of the Middle East (3 hrs)

Area Elective Courses 11 hours

Eleven hours from the following:
ANTH135 Introduction to Cultural Anthropology (3 hrs)
ANTH236 Peoples and Cultures of Africa (3 hrs)
ANTH336 Social and Cultural Change (3 hrs)
ECON585 Economic Growth and Development (3 hrs)
GEOG322 Geography of Africa (3 hrs)
HIST302 Near Eastern and Western Religions (3 hrs)
HIST339 Arab-Israeli Conflict (3 hrs)
HIST341 The Middle East, 1798 to the Present (3 hrs)
HIST342 North Africa, 1798 to the Present (3 hrs)
HIST543 Nationalism and Modernization in the Middle East and North Africa (3 hrs)
LITR351 World Mythology (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of area studies. No more than three of the seven courses in the minor may be chosen from a single discipline.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Area Studies Minor — Russia and Eastern Europe

Required Area Courses 12 hours

GEOG314 Geography of Russia and Neighboring States (3 hrs)
HIST344 Russia since 1855 (3 hrs)
HIST547 19th Century Ideological Background of the Russian Revolution (3 hrs)
PLSC361 Russian Politics in Transition (3 hrs)

Area Elective Courses 8 hours

Eight hours from the following:
ECON370 Comparative Economic Systems (3 hrs)
GEOG316 History and Geography of Modern Europe (3 hrs)
GEOG516 Problems in Soviet Geography (3 hrs)
HIST332 Modern Europe 1815-1919 (3 hrs)
HIST333 Europe since 1919 (3 hrs)

HIST343 Russia to 1855 (3 hrs)
HIST550 20th Century Russia (3 hrs)
PLSC462 Russian Foreign Relations (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of area studies. No more than three of the seven courses in the minor may be chosen from a single discipline.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

History Minor

Required Area Courses 6 hours

†One course from the following:
HIST101 Western Civilization to 1648 (3 hrs)
HIST102 Western Civilization, 1648 to World War I (3 hrs)
HIST103 20th Century Civilization (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)

History Courses 12 hours

Six hours of history courses at the 300-level or above in one of the following areas and three hours in each of the other two areas:
A. United States and Canada
B. Europe
C. Africa, Asia, Latin America, History of Religions
(HIST301 HIST302, HIST306, HIST307)

†Unrestricted Elective Courses 2 hours

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above. †No more than three 100-level courses may be counted toward the minor. HIST100 and HIST481 may not be counted. Secondary education certification requires at least eight hours of United States history.

Philosophy Minor

The philosophy minor consists of 24 credit hours. 15 of those hours must be above the 200-level or above. Minors must satisfactorily complete at least one course in each of the following four core areas, with a minimum of nine credit hours at the 300- or 400-level.

Minor Requirements24 hours

Students must select a minimum of three hours from each of the five core areas:

I. Logic and Reasoning 3-6 hours

At least one course from the following:
†PHIL120 Introduction to Critical Reasoning (3 hrs)
†PHIL130 Introduction to Logic (3 hrs)
PHIL181 Logic and Model Theory (3 hrs)
PHIL281 Symbolic Logic (3 hrs)

II. History of Philosophy 3-12 hours

At least one course from the following:
PHIL330 History of Philosophy: Ancient (3 hrs)
PHIL331 History of Philosophy: Modern (3 hrs)
PHIL332 History of Philosophy: 19th-Century (3 hrs)

III. Values 3-12 hours

At least one course from the following:
PHIL212 Philosophy of Art (3 hrs)
PHIL220 Ethics (3 hrs)

- PHIL221 Business Ethics (3 hrs)
- PHIL223 Medical Ethics (3 hrs)
- PHIL225 Political Philosophy (3 hrs)
- PHIL260 Existentialism (3 hrs)
- PHIL310 Aesthetics (3 hrs)
- PHIL355 Philosophy of Law (3 hrs)
- PHIL370 Philosophy and Narrative (3 hrs)
- *PHIL426 Topics in Gender and Philosophy (3 hrs)
- PHIL470 Contemporary European Philosophy (3 hrs)

IV. Epistemology and Metaphysics 3-12 hours

At least one course from the following:

- PHIL215 Philosophy of Religion (3 hrs)
- PHIL325 Theory of Knowledge (3 hrs)
- PHIL375 Metaphysics (3 hrs)
- PHIL380 Philosophy of Science (3 hrs)
- PHIL390 Phenomenology (3 hrs)
- *PHIL426 Topics in Gender and Philosophy (3 hrs)
- PHIL442 Philosophy of Mind (3 hrs)
- PHIL460 Philosophy of Language (3 hrs)
- PHIL471 Early Analytic Philosophy (3 hrs)
- PHIL475 Philosophy of Mathematics (3 hrs)

V. Eastern/Global 3-9 hours

At least one course from the following:

- PHIL226 Feminist Philosophy (3 hrs)
- PHIL228 Global Ethics (3 hrs)
- PHIL291 Introduction to Asian Philosophy (3 hrs)
- PHIL391 Philosophy in Early China (3 hrs)

Restricted Elective Courses 9 hours

Special Topic courses, Independent Study courses, or other courses approved by the Philosophy Section Chair.

Minor Total 24 hours

Note:

*All minors must have at least six hours of course work at the 300-level or above. Only one of PHIL100 Introduction to Philosophy or PHIL110 Philosophies of Life may be counted toward the major. *This course satisfies either area III or area IV, depending on its specific content. It may only be used to satisfy one area requirement. †Only one of PHIL120 Introduction to Critical Reasoning or PHIL130 Introduction to Logic may be counted toward the major.*

Religious Studies Minor

Required Course 3 hours

- HIST100 The Comparative Study of Religion (3 hrs)

Restricted Elective Courses 12 hours

Four courses from the following:

- ANTH338 Anthropology of Religion (3 hrs)
- HIST301 The Religions of South and East Asia (3 hrs)
- HIST302 Near Eastern and Western Religions (3 hrs)
- HIST303 History of American Religion (3 hrs)
- LITR251 The Bible as Literature (3 hrs)
- PHIL215 Philosophy of Religion (3 hrs)
- PSY225 Psychology of Religion (3 hrs)
- SOCL320 Sociology of Religion (3 hrs)

Elective Courses 5-6 hours

Two courses from the restricted elective courses list or from the following:

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ART107 Art History Survey I (3 hrs)
- ART340 History of Classical Art (3 hrs)
- ART341 History of Renaissance Art (3 hrs)
- CLAS301 Mythology (3 hrs)
- HIST306 Hinduism (3 hrs) (new)

- HIST307 Buddhism (3 hrs)
- HIST327 Europe in Early Middle Ages 400-1050 (3 hrs)
- HIST328 Europe Late Middle Ages 1050-1400 (3 hrs)
- HIST330 Europe in the Renaissance and Reformation (3 hrs)
- LITR309 The Development of American Literature (3 hrs)
- LITR351 World Mythology (3 hrs)
- LITR314 English Renaissance Prose and Poetry 1500-1660 (3 hrs)
- PHIL220 Ethics (3 hrs)
- PHIL260 Existentialism (3 hrs)

Certain independent study courses and special topics courses may be counted as restricted elective courses or elective courses with the approval of the advising coordinator of religious studies. No more than three of the seven courses in the minor may be chosen from a single area: fine arts, literature and history.

Minor Total 20-21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Social Science Group Minor (Non-Teaching)

The social science group minor requires a total of 24 credit hours chosen from history, anthropology, sociology, economics, geography and political science. The minor must include at least eight hours each in two of the areas of concentration listed below.

Of the 24 hours, at least eight must be at the 300-level or above. Students may not choose any courses from an area of concentration in which they are majoring.

This minor cannot be taken together with the social science major.

Areas of Concentration 16-18 hours

Select two areas of concentration from the following:

I. World history 8-9 hours

Two courses from the following:

- HIST101 Western Civilization to 1648 (3 hrs)
- HIST102 Western Civilization, 1648 to World War I (3 hrs)
- HIST103 20th Century Civilization (3 hrs)
- HIST106 Asian and African Civilizations (3 hrs)

One world history course at the 300-level or above (2-3 hrs)

II. United States history 8-9 hours

- HIST123 The United States to 1877 (3 hrs)
 - HIST124 The United States, 1877 to the Present (3 hrs)
- One United States or Canadian history course at the 300-level or above (2-3 hrs)

III. Anthropology 8-9 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- An anthropology course at the 300-level or above (3 hrs)
Any other anthropology course (2-3 hrs)

IV. Sociology 8-9 hours

- SOCL105 Introductory Sociology (3 hrs)
- A sociology course at the 300-level or above (3 hrs)
Any other sociology course (2-3 hrs)

V. Economics 8-9 hours

- ECON201 Principles of Macroeconomics (3 hrs)
 - ECON202 Principles of Microeconomics (3 hrs)
- An economics course at the 300-level or above (2-3 hrs)

VI. Geography 8-9 hours

- GEOG110 World Regions (3 hrs)
- A geography course at the 300-level or above (3 hrs)
Any other geography course (2-3 hrs)

VII. Political science 8-9 hours

One course from the following:

- PLSC112 American Government (3 hrs)
- PLSC113 American Government Honors (3 hrs)

A political science course at the 300-level or above (3 hrs)
Any other political science course (2-3 hrs)

Elective Courses 6-8 hours
Select courses from any of the above fields to complete the required 24 hours, except HIST100 and HIST481.

Minor Total 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

History Minor

Secondary, K-12 and Special
Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in history, certification code CC. The certification test covering this field is #09, "History."

Required Area Courses 12-15 hours

HIST123 The United States to 1877 (3 hrs)
HIST124 The United States, 1877 to the Present (3 hrs)
One option from the following:

Option I

HIST109 World History to 1500 (3 hrs)
HIST110 World History since 1500 (3 hrs)

Option II

HIST101 Western Civilization to 1648 (3 hrs)
HIST102 Western Civilization, 1648 to
World War I (3 hrs)
HIST103 20th-Century Civilization (3 hrs)

Restricted Elective Courses 9 hours

Three hours of history courses at the 300-level or above in each of the following areas:

- A. United States
- B. Europe
- C. Africa, Asia, Latin America, History of Religions
(HIST301, HIST302, HIST306, HIST307)

Minor Total 21-24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

History Courses that meet the Restricted Electives Area Requirements:

Upper-level history courses that meet the restricted electives requirement in Area A — US and Canada.

HIST303 History of American Religion (3 hrs)
HIST305 Native American History (3 hrs)
HIST313 Michigan History (3 hrs)
HIST315 History of Black Americans (3 hrs)
HIST319 The Civil Rights Movement in the United States (3 hrs)
HIST336 History of Women in the United States and Great Britain, 1800 to the present (3 hrs)
HIST350 History of Canada (3 hrs)
HIST362 United States Urban History (3 hrs)
HIST364 United States Military History (3 hrs)
HIST365 The Old South (3 hrs)
HIST380 American Colonies to Independence (3 hrs)
HIST383 The Age of Jackson (3 hrs)
HIST385 Civil War and Reconstruction (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)
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)
HIST482 The Age of Washington and Jefferson (3 hrs)
HIST386 The United States as an Emerging World Power (3 hrs)

Upper-level history courses that meet the restricted electives requirement Area B — Europe

HIST309 France to 1789 (3 hrs)
HIST310 France since 1789 (3 hrs)
HIST316 History and Geography of Modern Europe (3 hrs)
HIST321 Women and Gender in the Ancient World (3 hrs)
HIST323 Greek History (3 hrs)
HIST324 Roman History (3 hrs)
HIST327 Europe in the Early Middle Ages 400-1050 (3 hrs)
HIST328 Europe in the Late Middle Ages 1050-1400 (3 hrs)
HIST300 Europe in the Renaissance and Reformation (3 hrs)
HIST332 Modern Europe 1815-1919 (3 hrs)
HIST333 Europe since 1919 (3 hrs)
HIST335 History of Women in Europe (3 hrs)
HIST338 German History since 1815 (3 hrs)
HIST343 Russia to 1855 (3 hrs)
HIST344 Russia since 1855 (3 hrs)
HIST411 England to 1689 (3 hrs)
HIST412 England 1689 to the Present (3 hrs)
HIST427 Europe from Absolutism to Revolution 1648-1815 (3 hrs)
HIST435 Italy since 1815 (3 hrs)
HIST450 European Military History (3 hrs)
HIST451 History of the First World War 1914-1918 (3 hrs)
HIST456 Europe since 1945 (3 hrs)
HIST471 Social and Intellectual History of 19th-Century Europe (3 hrs)

Upper-level history courses that meet the restricted electives requirement in Area C — World History

HIST301 The Religions of South and East Asia (3 hrs)
HIST302 Near Eastern and Western Religions (3 hrs)
HIST317 History and Geography of Spanish America (3 hrs)
HIST326 History and Geography of Modern Asia (3 hrs)
HIST339 Arab-Israeli Conflict (3 hrs)
HIST341 The Middle East, 1798 to the Present (3 hrs)
HIST342 North Africa, 1798 to the Present (3 hrs)
HIST347 Sub-Saharan Africa to 1885 (3 hrs)
HIST348 20th Century Africa (3 hrs)
HIST355 Latin America: Colonial Period (3 hrs)
HIST356 Latin America: National Period (3 hrs)
HIST375 Modern India (3 hrs)
HIST441 The Far East to 1800 (3 hrs)
HIST442 Modern China (3 hrs)
HIST443 Modern Japan (3 hrs)
HIST444 China and its Nomadic Neighbors (3 hrs)
HIST457 History of Mexico (3 hrs)

Department of Mathematics

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Web site: www.math.emich.edu

See page 325 for course descriptions.

The program in mathematics is designed to give majors certain basic courses, and to ensure a broad background, yet allow enough electives for students to adapt program to any of the following areas of mathematics: junior and senior high school teaching, statistics, engineering, the physical sciences, or graduate work in pure or applied mathematics.

Degrees Offered

Bachelor of Science and Bachelor of Arts

Programs of Study

Majors:

- Mathematics
- Mathematics with concentration in statistics
- Mathematics for the Elementary Teaching Certificate
- Mathematics for secondary education

Minors:

- Mathematics
- Mathematics for secondary, K-12 and special education-secondary
- Mathematics with a concentration in statistics
- Mathematics for the Elementary Teaching Certificate

Joint Program with Economics:

Actuarial science and economics

Students majoring in mathematics must complete at least nine semester hours and minors must complete at least six semester hours from courses numbered 300 or above.

Advising

Students needing general program advising should contact the appropriate undergraduate adviser or the department secretary, who will direct students to appropriate faculty members.

Undergraduate Advising Coordinator: Chris Gardiner

Program Advisers:

- Mathematics:** Chris Gardiner
- Secondary mathematics education:** Joanne Caniglia, Chris Gardiner
- Elementary mathematics education:** Carla Tayeh, Barbara Britton
- Mathematics with concentration in statistics:** Chris Gardiner
- Actuarial examinations:** John Curran
- Actuarial science and economics:** John Curran (mathematics), David Crary (economics)

Graduate study leads to the master's degree in mathematics. The MA degree is described in the Graduate Catalog. For information, contact the graduate advising coordinator, Walter Parry.

Placement into Mathematics Classes

All mathematics classes require prerequisites or placement. Placement can be via ACT or SAT math score, or a score on the Mathematics Placement Test. For information, go to the department web site, or contact the Department of Mathematics office.

Without department permission, no student may receive credit in courses MATH104, MATH105, MATH107, MATH112, or MATH119 after credit for MATH120 has been earned.

Actuarial Science and Economics Major

Actuarial science and economics is a joint program of the Mathematics and Economics departments. In addition to following a prescribed series of courses, students are expected to pass the first two actuarial examinations. The examinations are sponsored by leading actuarial societies and administered in numerous U.S. locations. MATH372 and MATH472 are designed to prepare students for these examinations.

All majors must meet with the undergraduate advising coordinator in the Department of Mathematics to fill out a program sheet before graduation. At least 15 credit hours in the program, at the 300-level or above, must be taken at Eastern Michigan University.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....62 hours

Required Courses 12 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- One course from the following:*
 - COSC111 Introduction to Programming (3 hrs)
 - COSC145 Introduction to FORTRAN Programming (3 hrs)
- One course from the following:*
 - ECON361 Corporation Finance (3 hrs)
 - FIN350 Principles of Finance (3 hrs)

Required Mathematics Courses26 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH370 Probability and Statistics I (4 hrs)
- MATH372 Problems in Actuarial Studies I (2 hrs)
- MATH471 Probability and Statistics II (3 hrs)
- MATH472 Problems in Actuarial Studies II (2 hrs)

Required Economic Courses.....18 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- ECON301 Intermediate Macroeconomic Analysis (3 hrs)
- ECON302 Intermediate Microeconomic Analysis (3 hrs)
- ECON405 Economic Analysis for Business (3 hrs)
- ECON415 Introduction to Econometrics (3 hrs)

Restricted Elective Courses6 hours

- Any combination of electives from:*
 - Courses at the 300-level or above in mathematics
 - ECON340 Money and Banking (3 hrs)
 - ECON445 Economic Fluctuations and Forecasting (3 hrs)
 - ECON455 Cost-benefit Analysis (3 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses22 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mathematics Major

All majors must fill in a program sheet before graduation — see the undergraduate advising coordinator. At least nine credit hours in the major, at 300-level or above, must be taken at Eastern Michigan University.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours

- One course from the following:*
 - COSC111 Introduction to Programming (3 hrs)
 - COSC145 Introduction to FORTRAN Programming (3 hrs)

Major Requirements.....37 hours

Required Courses25 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH211 Introduction to Mathematical Proof (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)

MATH370 Probability and Statistics I (4 hrs)

One course from the following:

- MATH411 Abstract Algebra (3 hrs)
- MATH416 Linear Algebra (3 hrs)
- MATH420 Introduction to Real Analysis (3 hrs)

Restricted Elective Courses12 hours

Twelve hours from the following:

- MATH319 Mathematical Modeling (3 hrs)
- MATH325 Differential Equations (3 hrs)
- MATH341 College Geometry (3 hrs)
- MATH372 Problems in Actuarial Studies I (2 hrs)
- MATH407 Elementary Number Theory (3 hrs)
- MATH411 Abstract Algebra (3 hrs)
- MATH416 Linear Algebra (3 hrs)
- MATH418 Modeling with Linear Algebra (3 hrs)
- MATH420 Introduction to Real Analysis (3 hrs)
- MATH424 Introduction to Complex Variables (3 hrs)
- MATH425 Mathematics for Scientists (3 hrs)
- MATH436 Introduction to Numerical Analysis (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)

Minor Requirements20 hours

University Elective Courses24 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mathematics Major with Concentration in Statistics

All majors must fill in a program sheet before graduation — see the undergraduate advising coordinator. At least nine hours in the major, at 300-level or above, must be taken at Eastern Michigan University.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours

One of the following:

- COSC111 Introduction to Programming (3 hrs)
- COSC145 Introduction to FORTRAN Programming (3 hrs)

Major Requirements.....37 hours

Required Courses28 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH370 Probability and Statistics I (4 hrs)
- MATH461 Linear Regression Analysis (3 hrs)
- MATH462 Design and Analysis of Experiments (3 hrs)
- MATH471 Probability and Statistics II (3 hrs)

Restricted Elective Courses9 hours

At least nine hours from the following, with at least six hours from the applied statistics electives:

- Applied Statistics Elective Courses
- MATH460 Applied Survey Sampling (3 hrs)
- MATH474 Applied Statistics (3 hrs)

Mathematics Elective Courses

One course from the following:

- MATH416 Linear Algebra (3 hrs)
- MATH418 Modeling with Linear Algebra (3 hrs)
- MATH420 Introduction to Real Analysis (3 hrs)
- MATH472 Problems in Actuarial Studies II (2 hrs)

Minor Requirements20 hours

University Elective Courses24 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mathematics Major for the Elementary Teaching Certificate

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code EX. This program of studies meets all requirements of the National Council of Teachers of Mathematics. The Michigan Test for Teacher Certification (MTTC) covering this field is #89, "Mathematics (Elementary)." At least nine credit hours in the major must be taken at Eastern Michigan University.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 18-19 hours

- CHEM101 Chemistry for Elementary Teachers (3 hrs)
- ESSC202 Earth Science for Elementary Teachers (3 hrs)
- GEOG110 World Regions (3 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)
- PHY100 Physics for Elementary Teachers (3 hrs)
- PSY101/102 General Psychology (3/4 hrs)

Major Requirements.....30 hours

Required Courses22 hours

- MATH108 Mathematics for Elementary Teachers I (3 hrs)
- MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH210 Algebra for Elementary Teachers (3 hrs)
- MATH240 Geometry for Elementary Teachers (3 hrs)
- MATH301 Advanced Topics in Elementary Mathematics (3 hrs)
- MATH403 Current Research in Elementary School Mathematics (3 hrs)

Restricted Elective Courses 8 hours

Eight hours from the following, with at least three hours at the 300- or 400-level:

- MATH118 Linear Models and Probability (3 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH170 Elementary Statistics (3 hrs)
- MATH382 Technology in the Mathematics Classroom (3 hrs)
- MATH401 Mathematics and its History for Elementary Teachers (3 hrs)
- Other mathematics courses as approved by the advising coordinator for elementary mathematics education

Professional Studies58 hours

Pre-Admission Phase:

The Learner and the Community 8 hours

EDPS322 Human Development and Learning (4 hrs)	
FETE201 Field Experience I (1 hr)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
<i>The following courses require formal admission to the teacher education program:</i>	
Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses).....	8 hours
HLED320 Health Education in the Elementary Grades (2 hrs)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
TEDU253 Technology Education for Children (3 hrs)	
Phase II: Curriculum and Assessment (may be taken with Phase I courses).....	10 hours
CURR304 Curriculum and Methods: Elementary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE301 Field Experience II: Elementary (1 hr)	
RDNG300 Early Literacy (3 hrs)	
Phase III: Methods and Technology (may be taken with Phase IV courses).....	10 hours
BIOL303 Life Science for Elementary Teachers (3 hrs)	
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
MATH381 The Teaching of Mathematics, K-6 (3 hrs)	
PHED257 Physical Education for the Classroom Teacher (2 hrs)	
Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses).....	10 hours
ART300 Art Integration for the Elementary Teacher (4 hrs)	
FETE401 Field Experience III: Elementary (1 hr)	
MUSC320 Elementary Music Education (3 hrs)	
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (6 hrs)	
Phase V: Capstone Experience	12 hours
EDUC492 Student Teaching (12 hrs)	

Program Total..... 146-147 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mathematics Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in mathematics, certification code EX, and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Council of Teachers of Mathematics. The Michigan Test for Teacher Certification (MTTC) covering this field is #22, "Mathematics."

All majors must fill in a program sheet before graduation — see the undergraduate advising coordinator. At least nine hours in the major, at 300-level or above, must be taken at Eastern Michigan University.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours
One course from the following:
 COSC111 Introduction to Programming (3 hrs)
 COSC145 Introduction to FORTRAN Programming (3 hrs)

Major Requirements..... 34 hours
 Required Courses..... 28 hours

MATH120 Calculus I (4 hrs)	
MATH121 Calculus II (4 hrs)	
MATH122 Elementary Linear Algebra (3 hrs)	
MATH211 Introduction to Mathematical Proof (3 hrs)	
MATH223 Multivariable Calculus (4 hrs)	
MATH341 College Geometry (3 hrs)	
MATH411 Abstract Algebra (3 hrs)	
MATH370 Probability and Statistics I (4 hrs)	
Restricted Elective Courses	6 hours

Six hours from the following:

MATH319 Mathematical Modeling (3 hrs)	
MATH325 Differential Equations (3 hrs)	
MATH372 Problems in Actuarial Studies I (2 hrs)	
MATH400 History and Development of Mathematics (3 hrs)	
MATH407 Elementary Number Theory (3 hrs)	
MATH416 Linear Algebra (3 hrs)	
MATH420 Introduction to Real Analysis (3 hrs)	
MATH424 Introduction to Complex Variables (3 hrs)	
MATH425 Mathematics for Scientists (3 hrs)	
MATH471 Probability and Statistics II (3 hrs)	

Minor Requirements..... 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Professional Studies..... 39 hours
Pre-Admission Phase: The Learner and the Community:..... 8 hours

EDPS322 Human Development and Learning (4 hrs)	
FETE201 Field Experience I (1 hr)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context:.....	10 hours
CURR305 Curriculum and Methods: Secondary (3 hrs)	
EDPS340 Introduction to Assessment and Evaluation (3 hrs)	
FETE302 Field Experience II: Secondary (1 hr)	
SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Content Methods, Literacy and Technology:.....	9 hours
EDMT330 Instructional Applications of Media and Technology (2 hrs)	
FETE402 Field Experience III: Secondary (1 hr)	
MATH306 Teaching of High School Mathematics (3 hrs)	
RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Phase III: Capstone Experience:.....	12 hours
EDUC492 Student Teaching (12 hrs)	

Program Total..... 136-140 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mathematics Minor

All minors must fill in a program sheet before graduation — see the undergraduate advising coordinator. At least six hours in the minor, at 300-level or above, must be taken at Eastern Michigan University.

Additional Requirements..... 3 hours
One course from the following:
 COSC111 Introduction to Programming (3 hrs)
 COSC145 Introduction to FORTRAN Programming (3 hrs)

Required Courses..... 14-15 hours
 MATH120 Calculus I (4 hrs)
 MATH121 Calculus II (4 hrs)

MATH122 Elementary Linear Algebra (3 hrs)

One course from the following:

†MATH211 Introduction to Mathematical Proof (3 hrs)

‡MATH360 Statistical Methods (3 hrs)

‡MATH370 Probability and Statistics I (4 hrs)

Restricted Elective Courses 5-6 hours

Five to six hours from the following:

†MATH205 Mathematical Structures for Computer Science (4 hrs)

MATH223 Multivariable Calculus (4 hrs)

MATH319 Mathematical Modeling (3 hrs)

MATH325 Differential Equations (3 hrs)

MATH341 College Geometry (3 hrs)

‡MATH360 Statistical Methods (3 hrs)

‡MATH370 Probability and Statistics I (4 hrs)

MATH372 Problems in Actuarial Studies I (2 hrs)

MATH407 Elementary Number Theory (3 hrs)

MATH411 Abstract Algebra (3 hrs)

MATH416 Linear Algebra (3 hrs)

MATH418 Modeling with Linear Algebra (3 hrs)

MATH420 Introduction to Real Analysis (3 hrs)

MATH424 Introduction to Complex Variables (3 hrs)

MATH425 Mathematics for Scientists (3 hrs)

MATH436 Introduction to Numerical Analysis (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)

Minor Total 23 hours

Note:

†Students can not count both MATH205 and MATH211 toward the minor.

‡It is not permitted to count both MATH360 and MATH370 on the minor.

Mathematics Minor with Concentration in Statistics

All minors must fill in a program sheet before graduation — see the undergraduate advising coordinator. At least six hours in the minor, at 300-level or above, must be taken at Eastern Michigan University.

Additional Requirement 3 hours

One course from the following:

COSC111 Introduction to Programming (3 hrs)

COSC145 Introduction to FORTRAN Programming (3 hrs)

Required Courses 14-15 hours

MATH120 Calculus I (4 hrs)

MATH121 Calculus II (4 hrs)

MATH122 Elementary Linear Algebra (3 hrs)

One course from the following:

MATH360 Statistical Methods (3 hrs)

MATH370 Probability and Statistics I (4 hrs)

Restricted Elective Courses 9-10 hours

Nine hours from among the following, at least six of which must be taken from the statistics elective courses:

Statistics Elective Courses

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)

MATH474 Applied Statistics (3 hrs)

Mathematics Elective Courses

†MATH205 Mathematical Structures for Computer Science (4 hrs)

†MATH211 Introduction to Mathematical Proof (3 hrs)

MATH223 Multivariable Calculus (4 hrs)

Minor Total 26-28 hours

Note:

†Students can not count both MATH205 and MATH211 toward the minor.

Mathematics Minor for the Elementary Teaching Certificate

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code EX. The Michigan Test for Teacher Certification (MTTC) covering this field is #89, “Mathematics (Elementary).” At least six hours in the minor, at 300-level or above, must be taken at Eastern Michigan University.

Required Courses 15 hours

MATH108 Mathematics for Elementary Teachers I (3 hrs)

MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)

MATH210 Algebra for Elementary Teachers (3 hrs)

MATH240 Geometry for Elementary Teachers (3 hrs)

MATH301 Advanced Topics in Elementary Mathematics (3 hrs)

Restricted Elective Courses 5 hours

Five hours from the following, with at least three hours at the 300- or 400-level:

MATH118 Linear Models and Probability (3 hrs)

MATH120 Calculus I (4 hrs)

MATH122 Elementary Linear Algebra (3 hrs)

MATH170 Elementary Statistics (3 hrs)

MATH382 Technology in the Mathematics Classroom (3 hrs)

MATH401 Mathematics and Its History for Elementary Teachers (3 hrs)

MATH403 Current Research in Elementary School Mathematics (3 hrs)

Or other mathematics courses as approved by the advising coordinator for elementary mathematics education.

Minor Total 20 hours

Mathematics Minor

K-12, Secondary and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code EX. The Michigan Test for Teacher Certification (MTTC) covering this field is #22, “Mathematics.”

All minors must fill in a program sheet before graduation — see the undergraduate advising coordinator.

At least six credit hours in the minor, at 300-level or above, but not including MATH304 or MATH306, must be taken at Eastern Michigan University.

Additional Requirement 3 hours

One course from the following:

COSC111 Introduction to Programming (3 hrs)

COSC145 Introduction to FORTRAN Programming (3 hrs)

Required Courses 23-24 hours

MATH120 Calculus I (4 hrs)

MATH121 Calculus II (4 hrs)

MATH122 Elementary Linear Algebra (3 hrs)

MATH211 Introduction to Mathematical Proof (3 hrs)

MATH341 College Geometry (3 hrs)

- One course from the following:
 MATH360 Statistical Methods (3 hrs)
 MATH370 Probability and Statistics I (4 hrs)
- One course from the following:
 MATH304 Middle School Mathematics Methods and Content (3 hrs)
 MATH306 Teaching of High School Mathematics (3 hrs)

Restricted Elective Courses2-3 hours

Sufficient credits (normally three) to bring the total to 26 hours (not including the COSC requirements):

- MATH223 Multivariable Calculus (4 hrs)
- MATH319 Mathematical Modeling (3 hrs)
- MATH325 Differential Equations (3 hrs)
- MATH400 History and Development of Mathematics (3 hrs)
- MATH407 Elementary Number Theory (3 hrs)
- MATH411 Abstract Algebra (3 hrs)
- MATH416 Linear Algebra (3 hrs)
- MATH420 Introduction to Real Analysis (3 hrs)
- MATH424 Introduction to Complex Variables (3 hrs)

Minor Total29 hours

Department of Music and Dance

Address: N101 Alexander
 Phone: 734.487.4380
 E-mail: dave.woike@emich.edu
 Web site: <http://www.emich.edu/musicdance>

See page 283, 333 and 336 for course descriptions.

The Eastern Michigan University Department of Music and Dance strives to promote lifelong learning, to prepare students for professional careers in music or dance, 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

Programs

- Bachelor of Music Education (instrumental and vocal)
- Bachelor of Music Therapy
- Bachelor of Music (Performance)
- Bachelor of Arts, bachelor of science (music major and dance majors in pre-dance therapy, studio management, or performance)
- Master of Arts with concentrations in music education, performance, piano pedagogy and theory/literature
- The Music Therapy Equivalency certificate

The Department of Music and Dance is a member of the National Association of Schools of Music.

Applications

Enrollment in any music or dance curriculum will be determined by the results of an audition process. All prospective students should contact the department well in advance of their intended registration date to arrange these auditions and examinations. Transfer students may apply at the same time for advanced standing in music or dance.

Address all correspondence to:

Department of Music and Dance
 N101 Alexander Music Building
 Eastern Michigan University
 Ypsilanti, MI 48197

Advising

Students are strongly encouraged to seek music advising. Advising sessions are held during the week before open course enrollment each fall or winter term. The names of advisers are posted each term in the department office or the coordinator of music advising may be contacted for further information.

David M. Pierce, coordinator of Music Advising
 Address: N101 Alexander
 Phone: 734.487.4380
 E-mail: david.pierce@emich.edu

Joann McNamara, coordinator of Dance
 Address: 318 S Porter
 Phone: 734.487.4380
 E-mail: joanne.mcnamara@emich.edu

Applied Music

The bachelor's degrees require varying credit hours of work on the principal applied music instrument as indicated in the course requirement listings for each curriculum and major. Students may be admitted to the 100-level applied music at different degrees of competency; therefore, some students may require more time to achieve the proficiency needed for admission to 300-level applied music. Permission to advance to 300-level applied music is given by the faculty jury with the permission of the teacher.

Applied music is a requirement of each degree program and is offered in the following areas of specialization:

- | | |
|--------------------|-------------------|
| Bassoon (ABSN) | Cello (AVCL) |
| Clarinet (ACLA) | Euphonium (AEPH) |
| Flute (AFLT) | Guitar (AGTR) |
| Harp (AHRP) | Harpichord (AHPS) |
| Horn (AHRN) | Oboe (AOBO) |
| Organ (AORG) | Percussion (APER) |
| Piano (APNO) | Saxophone (ASAX) |
| String Bass (ADBS) | Trombone (ATRB) |
| Trumpet (ATPT) | Tuba (ATUB) |
| Viola (AVLA) | Violin (AVLN) |
| Voice (AVOC) | |

Students who do not qualify by audition for admission to a curriculum in music may, at the discretion of the department, be assigned preparatory work until ready for University-level applied music study. It should be understood that delayed admission as a departmental major may extend the time normally required to satisfy graduation requirements.

Transfer students may be granted credit for applied music study accomplished at another institution or with a recognized private teacher. Eligibility for credit will be determined by audition. A course of study designed to satisfy Department of Music and Dance graduation requirements will be recommended at that time.

Applied Music Fees

Fees are charged for applied music according to the following schedule:

Music majors: \$60 per semester (maximum) for all instruction.

Music minors and other University students: \$60 per semester for a two-credit applied music, \$30 per semester for one-credit applied music (\$60 maximum per semester).

Recitals

Student recitals are a participatory expectation of all applied music students. These performances may take place in studio classes, informal departmental recitals or in public recitals, where required.

A senior recital to fulfill requirements of graduation must be prepared and approved by an appropriate faculty committee. Chamber music may be included on the programs. In such an event, the recitalist must have a principal solo role in the music performed. Additional approval of senior recital programs for public performance will rest with the committee's recommendation.

All public recitals are subject to prior review and approval by a faculty committee.

Recital Attendance Requirement

Each undergraduate music major must attend a total of 80 recitals/concerts (events) during their time of undergraduate study; they will receive credit for no more than 25 events per academic year. Students who fail to meet this requirement will not be permitted to graduate. The number of events that transfer students and students seeking a second baccalaureate degree must attend will be pro-rated, based on the number of semesters of work remaining at the time of their matriculation. Normally each semester the student will attend at least 10 musical events, of which five are usually the Department of Music and Dance recitals that take place each Tues. at 11 a.m. Recital attendance credit will be received for attendance at any Department of Music and Dance event for which recital attendance cards are distributed and collected. Students must be present for an entire event to receive credit. Late-comers will not be given a card. The cards are collected at the end of the program. A student who is performing in an event may receive recital attendance credit for that event if the student performs in less than 50 percent of the event. Attendance at many non-departmental musical events may be credited toward the recital-attendance requirement. To obtain credit for a non-departmental event, please bring a ticket stub and program to the music office. The head of the Department of Music and Dance will determine whether or not the event qualifies for recital credit.

Graduate Study

Graduate study leads to the master of arts degree in music. For description of graduate courses, see the graduate catalog.

EMU Community Music Academy

Students from public schools and the community, and EMU staff and families may take music lessons through the EMU Community Music Academy. Fees vary depending on the length of the lesson and the instructor. Call the Department of Music and Dance for details (734.487.4380).

Dance Curriculum

The dance curriculum is uniquely designed, offering students of dance a choice of three career-track options. This curriculum leads to a bachelor of science degree. The three tracks are: (1) pre-dance therapy, (2) studio management and (3) performance and choreography. Students are not required to choose a minor, with the exception of studio management.

Students planning admission to the dance major must officially enroll in the program at the Academic Advising Center and complete the following:

1. An audition into the program;
2. An application into the dance program at N101 Alexander or online at www.emich.edu/dance/html/dance_future.html;
3. A course of study planned with a dance adviser upon admission into the dance program.

All students must meet the General Education Requirements and the other courses specified in each area below. Suitable adjustments can be made in consultation with a dance faculty adviser. Some of the track required courses can be used to fulfill General Education Requirements.

Dance majors and minors are encouraged to enroll in a technique class every semester while attending Eastern Michigan University. Ballet or modern technique classes may be repeated for no-credit.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....53-76 hours

Dance Core.....37 hours

- DANC107 Rhythmic Analysis and Dance Accompaniment (3 hrs)
- DANC208 Classical Ballet Technique III (3 hrs)
- DANC209 Classical Ballet Technique IV (3 hrs)
- DANC210 Modern Dance Technique III (3 hrs)
- DANC211 Modern Dance Technique IV (3 hrs)
- DANC245 Elements of Dance Composition (3 hrs)
- DANC255 Dance Production (3 hrs)
- DANC320 Dance Workshop (1 hr)
- DANC350 History of Dance (3 hrs)
- DANC354 Methods and Materials in Teaching of Dance (3 hrs)
- DANC422 Dance Workshop (2 hrs)
- DANC450 Advanced Dance Composition (4 hrs)
- DANC455 Seminar in Dance (2 hrs)
- DANC497 Directed Study (1 hr)

Select from one of the following tracks:

Track I: Pre-Dance Therapy

(DANC PTHY).....39 hours

- EDPS325 Life Span Human Growth and Development (4 hrs)
 - PHED200 Anatomy and Physiology (5 hrs)
 - PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)
 - PHED209 Bio-Fitness (3 hrs)
 - PSY309 Social Psychology (3 hrs)
 - PSY360 Abnormal Psychology (3 hrs)
 - PSY361 Psychotherapy (3 hrs)
 - THRC250 Fieldwork in Recreation/Therapeutic Recreation (1 hr)
- One course from the following:*
- DANC331 Service Teaching-Ballet (1 hr)
 - DANC333 Service Teaching-Modern Dance (1 hr)
- One course from the following:*
- PSY321 Child Psychology (3 hrs)
 - PSY322 Psychology of Adolescence (3 hrs)
 - PSY323 Psychology of Human Aging (3 hrs)

One course from the following:

- PSY362 The Psychology of Stress and Relaxation (3 hrs)
- PSY365 Behavior Modification (3 hrs)

Seven hours from the following:

- CTAR326 Drama/Theatre for Persons with Disabilities (2 hrs)
- MUSC103 Introduction to Music Therapy (2 hrs)
- PHED330 Adapted Physical Education (3 hrs)
- THRC200 Recreation for Persons with Disabilities (3 hrs)

Track II: Studio Management

(DANC STMG).....37 hours

The studio management track must select a minor from the college of business with adviser approval (21 credit hours).

- DANC103 Tap I (2 hrs)
- DANC331 Service Teaching-Ballet (1 hr)
- DANC333 Service Teaching-Modern Dance (1 hr)
- DANC456 Creative Dance for Children (2 hrs)
- PEGN102 Aerobic Dance (1 hr)
- PEGN103 Couple, Square and Ballroom Dancing (1 hr)
- PHED200 Anatomy and Physiology (5 hrs)
- PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)

Track III: Performance

(DANC PERF).....25 hours

- CTAO102 Voice Development (1 hr)
- CTAR158 Fundamentals of Acting (3 hrs)

CTAR254 Stage Makeup (1 hr)
 CTAR457 Audition (2 hrs)
 CTAR461 Musical Theatre Acting (2 hrs)
 DANC103 Tap I (2 hrs)
 DANC201 Jazz II (2 hrs)
 DANC320 Dance Workshop (1 hr)
 DANC422 Dance Workshop (2 hrs)
 MUSC232 Voice Class (1 hr)
 PHED200 Anatomy and Physiology (5 hrs)
 PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)

Minor Requirements 0 hours
No minor is required

University Elective Courses8-22 hours

Program Total 124-126 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Music Major

Students must complete the requirements for the bachelor of arts or bachelor of science degrees by including the academic major below and a different minor subject of 20 to 24 hours in some other department. Bachelor of Arts degrees include one year of foreign language. *Students will not earn a teaching certificate by completing this major.*

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....48 hours
 General Music Requirements34 hours

MUSC101 Music Theory I (3 hrs)
 MUSC118 Music Literature I (1 hr)
 MUSC119 Aural Skills I (1 hr)
 MUSC102 Music Theory II (3 hrs)
 MUSC128 Music Literature II (1 hr)
 MUSC129 Aural Skills II (1 hr)
 MUSC201 Music Theory III (3 hrs)
 MUSC218 Music Literature III (1 hr)
 MUSC219 Aural Skills III (1 hr)
 MUSC202 Music Theory IV (3 hrs)
 MUSC228 Music Literature IV (1 hr)
 MUSC229 Aural Skills IV (1 hr)
 MUSC251 Functional Piano I (1 hr)
 MUSC252 Functional Piano II (1 hr)
 MUSC253 Functional Piano III (1 hr)
 MUSC254 Functional Piano IV (1 hr)
 MUSC301 History of Music (3 hrs)
 MUSC302 History of Music (3 hrs)
 Upper-level music theory/literature electives (4 hrs)

Four hours from the following:

MUSC317 Music Composition (2 hrs)
 MUSC341 Contrapuntal Techniques (2 hrs)
 MUSC401 Music Theory-Literature V (2 hrs)
 MUSC402 Music Theory-Literature VI (2 hrs)
 MUSC404 Psychology of Music I (2 hrs)
 MUSC413 Orchestration (2 hrs)
 MUSC414 Band Arranging (2 hrs)

Applied Music (principal instrument)12 hours
 Axxx112 Applied Music (2 hrs)
 Axxx114 Applied Music (2 hrs)
 Axxx212 Applied Music (2 hrs)
 Axxx214 Applied Music (2 hrs)
 Axxx312 Applied Music (2 hrs)

Axxx314 Applied Music (2 hrs)
 Ensembles2 hours

Minor Requirements20 hours

University Elective Courses16 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Music Performance Major (Instrumental)

With specialization in guitar, keyboard, strings, winds or percussion

The bachelor of music degree curriculum is available for students who wish to pursue a career in performance. All general education requirements must be completed, including one approved course in cross-cultural or international studies.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....82 hours

†Applied Music (principal instrument).....32 hours

Axxx140 Applied Music (4 hrs)
 Axxx144 Applied Music (4 hrs)
 Axxx240 Applied Music (4 hrs)
 Axxx244 Applied Music (4 hrs)
 Axxx340 Applied Music (4 hrs)
 Axxx344 Applied Music (4 hrs)
 Axxx440 Applied Music (4 hrs)
 Axxx444 Applied Music (4 hrs)

Supporting Courses30 hours

MUSC101 Music Theory I (3 hrs)
 MUSC118 Music Literature I (1 hr)
 MUSC119 Aural Skills I (1 hr)
 MUSC102 Music Theory II (3 hrs)
 MUSC128 Music Literature II (1 hr)
 MUSC129 Aural Skills II (1 hr)
 MUSC201 Music Theory III (3 hrs)
 MUSC218 Music Literature III (1 hr)
 MUSC219 Aural Skills III (1 hr)
 MUSC202 Music Theory IV (3 hrs)
 MUSC228 Music Literature IV (1 hr)
 MUSC229 Aural Skills IV (1 hr)
 MUSC301 History of Music (3 hrs)
 MUSC302 History of Music (3 hrs)
 Upper-level music theory/literature electives (4 hrs)

Four hours from the following:

MUSC317 Music Composition (2 hrs)
 MUSC341 Contrapuntal Techniques (2 hrs)
 MUSC401 Music Theory-Literature V (2 hrs)
 MUSC402 Music Theory-Literature VI (2 hrs)
 MUSC404 Psychology of Music I (2 hrs)
 MUSC413 Orchestration (2 hrs)
 MUSC414 Band Arranging (2 hrs)

Courses Chosen According to

Area of Specialization20 hours

I. Guitar

MUSC251 Functional Piano I (1 hr)
 MUSC252 Functional Piano II (1 hr)
 MUSC253 Functional Piano III (1 hr)
 MUSC254 Functional Piano IV (1 hr)
 MUSC326 Beginning Conducting (2 hrs)
 MUSC327 Instrumental Conducting (2 hrs)

Ensembles (8 hrs)	
Elective courses in music (4 hrs)	
II. Keyboard	
Courses chosen in consultation with major professor (4 hrs)	
MUSC326 Beginning Conducting (2 hrs)	
Ensembles (8 hrs)	
<i>may include up to two credit hours of accompanying</i>	
Elective courses in music (6 hrs)	
III. Strings	
MUSC248 University Orchestra (8 hrs)	
MUSC251 Functional Piano I (1 hr)	
MUSC252 Functional Piano II (1 hr)	
MUSC253 Functional Piano III (1 hr)	
MUSC254 Functional Piano IV (1 hr)	
MUSC326 Beginning Conducting (2 hrs)	
MUSC327 Instrumental Conducting (2 hrs)	
Elective courses in music (3 hrs)	
<i>One from the following:</i>	
Viola principal	
<i>One course from the following:</i>	
AVLN111 Applied Music (1 hr)	
MUSC261 Basic String class: Violin (1 hr)	
Violin principal	
<i>One course from the following:</i>	
AVLA111 Applied Music (1 hr)	
MUSC262 String class: Viola (1 hr)	
Cello principal	
<i>One course from the following:</i>	
ADBS111 Applied Music (1 hr)	
MUSC263 String class: Cello-Bass (1 hr)	
String Bass principal	
<i>One course from the following:</i>	
AVCL111 Applied Music (1 hr)	
MUSC263 String class: Cello-Bass (1 hr)	
IV. Wind or Percussion	
MUSC251 Functional Piano I (1 hr)	
MUSC252 Functional Piano II (1 hr)	
MUSC253 Functional Piano III (1 hr)	
MUSC254 Functional Piano IV (1 hr)	
MUSC326 Beginning Conducting (2 hrs)	
Elective courses in music (6 hrs)	
<i>One course from the following:</i>	
MUSC248 University Orchestra (8 hrs)	
MUSC249 University Band (8 hrs)	

Minor Requirements.....	0 hours
<i>No minor is required.</i>	
Electives.....	2 hours
Program Total.....	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†Both a junior and a senior recital are required. Students must enroll in applied music during the semester each recital is performed.
All bachelor of music students must meet an improvisation requirement. The requirement may be met in one of the following ways:

- MUSC305 Keyboard Skills
- MUSC244 Jazz Ensemble
- Other approved improvisation course (the above options count toward music electives, and are to be selected with a music department adviser)
- By contract in applied music for at least one fall or winter semester (see applied music professor for details)

Music Performance Major (Vocal)

The bachelor of music degree curriculum is available for students who wish to pursue a career in performance. All general education requirements must be completed, including one approved course in cross-cultural or international studies.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements.....10 hours
FRNH121/122 Beginning French (5 hrs)
GERN121/122 Beginning German (5 hrs)

Major Requirements.....86 hours
†Applied Music (principal instrument).....32 hours
AVOC140 Applied Music (4 hrs)
AVOC144 Applied Music (4 hrs)
AVOC240 Applied Music (4 hrs)
AVOC244 Applied Music (4 hrs)
AVOC340 Applied Music (4 hrs)
AVOC344 Applied Music (4 hrs)
AVOC440 Applied Music (4 hrs)
AVOC444 Applied Music (4 hrs)

Supporting Courses48 hours

MUSC101 Music Theory I (3 hrs)
MUSC118 Music Literature I (1 hr)
MUSC119 Aural Skills I (1 hr)
MUSC102 Music Theory II (3 hrs)
MUSC128 Music Literature II (1 hr)
MUSC129 Aural Skills II (1 hr)
MUSC201 Music Theory III (3 hrs)
MUSC218 Music Literature III (1 hr)
MUSC219 Aural Skills III (1 hr)
MUSC202 Music Theory IV (3 hrs)
MUSC228 Music Literature IV (1 hr)
MUSC229 Aural Skills IV (1 hr)
MUSC251 Functional Piano I (1 hr)
MUSC252 Functional Piano II (1 hr)
MUSC253 Functional Piano III (1 hr)
MUSC254 Functional Piano IV (1 hr)
MUSC305 Keyboard Skills (2 hrs)
MUSC301 History of Music (3 hrs)
MUSC302 History of Music (3 hrs)
Upper-level music theory/literature electives (4 hrs)

Four hours from the following:

MUSC317 Music Composition (2 hrs)
MUSC341 Contrapuntal Techniques (2 hrs)
MUSC401 Music Theory-Literature V (2 hrs)
MUSC402 Music Theory-Literature VI (2 hrs)
MUSC404 Psychology of Music I (2 hrs)
MUSC413 Orchestration (2 hrs)
MUSC414 Band Arranging (2 hrs)

Vocal Ensembles (8 hrs)

Courses Chosen According to

Area of Specialization10 hours

MUSC235 Diction in Singing (2 hrs)
MUSC326 Beginning Conducting (2 hrs)
Music courses chosen in consultation with major professor (6 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total..... 136 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†Both a junior and a senior recital required. Students must enroll in applied music during the semester each recital is performed.

Music Therapy Major

Successful completion of the requirements for the bachelor of music therapy degree makes students eligible to sit for the Certification Examination given by the Certification Board for Music Therapists.™

The bachelor of music therapy degree is awarded on completion of this curriculum. The degree program is approved by the American Music Therapy Association.

Certification in Music Therapy

The Certification Board for Music Therapists (CBMT) mandates that candidates for board certification must have successfully completed the academic and clinical training requirements for music therapy, or their equivalent, as established by the American Music Therapy Association. Candidates who pass the CBMT examination are allowed to use the credential "Music Therapist-Board Certified" (MT-BC).

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements.....20-21 hours

BIOL105 Introductory Biology for Non-majors (4 hrs)

PSY101/102 General Psychology (3-4 hrs)

PSY360 Abnormal Psychology (3 hrs)

SOCL105 Introductory Sociology (3 hrs)

ZOOL326 Human Physiology (3 hrs)

One course from the following:

CTAC225 Listening Behavior (3 hrs)

CTAC226 Nonverbal Communication (3 hrs)

CTAC227 Interpersonal Communication (3 hrs)

CTAC274 Intercultural Communication (3 hrs)

CTAC275 Interracial/Interethnic Communication (3 hrs)

Two hours of physical education activity credit selected from the following. At least one is to be taken prior to MUSC221:

Dance Activity Course (1 hr)

Dance Activity Course (2 hrs)

Major Requirements.....87 hours

Education Courses.....3 hours

SPGN251 Education of Students with Exceptionalities (3 hrs)

Fine Arts Courses.....84 hours

Music Theory and History Courses

MUSC101 Music Theory I (3 hrs)

MUSC118 Music Literature I (1 hr)

MUSC119 Aural Skills I (1 hr)

MUSC102 Music Theory II (3 hrs)

MUSC128 Music Literature II (1 hr)

MUSC129 Aural Skills II (1 hr)

MUSC201 Music Theory III (3 hrs)

MUSC218 Music Literature III (1 hr)

MUSC219 Aural Skills III (1 hr)

MUSC202 Music Theory IV (3 hrs)

MUSC228 Music Literature IV (1 hr)

MUSC229 Aural Skills IV (1 hr)

MUSC301 History of Music (3 hrs)

MUSC302 History of Music (3 hrs)

MUSC413 Orchestration (2 hrs)

Applied Music

MUSC326 Conducting (2 hrs)

†Ensembles (4 hrs)

Applied Music courses at the 100- to 412-level (principal instrument) (14 hrs)

Secondary instrument classes (4 hrs)

MUSC211 Basic Brass Class

MUSC241 Percussion

MUSC261 Basic String Class: Violin

MUSC281 Basic Woodwind Class

Functional performance skills as determined by the American Music Therapy Association

Some students should be able to meet some of these skill requirements upon entrance, or they can be achieved through the courses listed below:

I. Voice

MUSC232 Voice Class (1 hr)

One course from the following:

AVOC101 Applied Music (1 hr)

AVOC111 Applied Music (1 hr)

II. Piano

MUSC251 Functional Piano (1 hr)

MUSC252 Functional Piano (1 hr)

MUSC253 Functional Piano (1 hr)

MUSC254 Functional Piano (1 hr)

MUSC305 Keyboard Skills (2 hrs)

III. Guitar

MUSC274 Functional Guitar (2 hrs)

Music Therapy Courses

MUSC103 Introduction to Music Therapy (2 hrs)

MUSC221 Methods and Materials in Music Therapy (2 hrs)

MUSC222 Preclinical Training Practicum in Music Therapy I (1 hr)

MUSC223 Preclinical Training Practicum in Music Therapy II (1 hr)

MUSC303 Music Therapy Principles I (4 hrs)

MUSC304 Music Therapy Principles II (4 hrs)

MUSC404 Psychology of Music I (2 hrs)

MUSC405 Psychology of Music II (2 hrs)

MUSC424 Preclinical Training Practicum in Music Therapy III (1 hr)

MUSC425 Preclinical Training Practicum in Music Therapy IV (1 hr)

MUSC488 Clinical Training in Music Therapy (2 hrs)

Minor Requirements.....0 hours

No minor is required.

Program Total.....148-149 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†At least two credit hours in vocal ensembles required.

Music Education Major (Instrumental)

K-12 Teacher Certification

Successful completion of this course of studies, which leads to the bachelor of music education degree, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code JQ. The Michigan Test for Teacher Certification (MTTC) covering this field is #99, "Music Education."

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....70 hours

General Music Courses.....51 hours

MUSC101 Music Theory I (3 hrs)

MUSC118 Music Literature I (1 hr)

MUSC119 Aural Skills I (1 hr)

MUSC102 Music Theory II (3 hrs)

MUSC128 Music Literature II (1 hr)

MUSC129 Aural Skills II (1 hr)

MUSC201 Music Theory III (3 hrs)

MUSC218 Music Literature III (1 hr)

- MUSC219 Aural Skills III (1 hr)
- MUSC202 Music Theory IV (3 hrs)
- MUSC211 Basic Brass Class (1 hr)
- MUSC228 Music Literature IV (1 hr)
- MUSC229 Aural Skills IV (1 hr)
- MUSC232 Voice Class (1 hr)
- MUSC241 Percussion (1 hr)
- MUSC251 Functional Piano I (1 hr)
- MUSC252 Functional Piano II (1 hr)
- MUSC253 Functional Piano III (1 hr)
- MUSC254 Functional Piano IV (1 hr)
- MUSC261 Basic String Class: Violin (1 hr)
- MUSC281 Basic Woodwind Class (1 hr)
- MUSC301 History of Music (3 hrs)
- MUSC302 History of Music (3 hrs)
- MUSC326 Conducting (2 hrs)
- MUSC327 Instrumental Conducting (2 hrs)
- MUSC413 Orchestration (2 hrs)

Two courses from the following:

- MUSC212 Brass Class (1 hr)
- MUSC262 String Class: Viola (1 hr)
- MUSC263 String Class: Cello and Double Bass (1 hr)
- MUSC282 Woodwind Class (1 hr)
- MUSC283 Woodwind Class (1 hr)

Large Instrumental Ensembles (8 hrs)

Wind/percussion principals must enroll in MUSC249 University Band; string principals must enroll in MUSC248 University Orchestra. String principals: music electives chosen in consultation with major professor (may include chamber music) (3 hrs). Wind and Percussion principals: MUSC249 Marching Band (3 hrs).

†Applied Music Courses.....16 hours

- Axxx112 Applied Music (2 hrs)
- Axxx114 Applied Music (2 hrs)
- Axxx212 Applied Music (2 hrs)
- Axxx214 Applied Music (2 hrs)
- Axxx312 Applied Music (2 hrs)
- Axxx314 Applied Music (2 hrs)
- Axxx412 Applied Music (2 hrs)
- Axxx414 Applied Music (2 hrs)

Elective Courses.....3 hours

Professional Studies33 hours

The following courses may be taken before formal admission to the teacher education program:

- 100 clock hours of approved prestudent teaching field experiences (0 hrs)
- SPGN251 Education of Students with Exceptionalities (3 hrs)
- EDPS322 Human Development and Learning (4 hrs)

The following courses require formal admission to the teacher education program:

- SOFD328 Schools in a Multicultural Society (3 hrs)
- MUSC332 Instrumental Music in the Public Schools (3 hrs)
- One course from the following:*
- MUSC333 Orchestral Methods (3 hrs) (for string principals)
- MUSC334 Band Methods (3 hrs) (for wind/percussion principals)
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)
- EDUC496 Student Teaching (6 hrs)
- EDUC497 Student Teaching (6 hrs)

Program Total.....143 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†A senior recital approval required. Students must enroll in applied music during the semester the recital is performed.

All Bachelor of Music Education students must meet an improvisation requirement. The requirement may be met in one of the following ways:

- MUSC305 Keyboard Skills
- MUSC244 Jazz Ensemble
- Other approved improvisation course (the above options count toward music electives, and are to be selected with a music department adviser)
- By contract in applied music for at least one fall or winter semester (see applied music professor for details).

Keyboard principals will waive MUSC251/252/253/254. Instead, they must take Applied Music (wind/percussion/string instrument): Axxx111, Axxx113, Axxx211, Axxx213 (total of 4 hours).

Music Education Major (Vocal)

K-12 Teacher Certification

Successful completion of this course of studies, which leads to the bachelor of music education degree, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary-Secondary Provisional Certificate endorsed in music education, certification code JQ. The Michigan Test for Teacher Certification (MTTC) covering this field is #99, "Music Education." At the time of admission to the Bachelor of Music Education — Vocal curriculum, students with piano as a secondary instrument must demonstrate the required level of proficiency for graduation, or elect piano every semester until the required proficiency is attained.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements.....70 hours

General Music Requirements48 hours

- MUSC101 Music Theory I (3 hrs)
- MUSC102 Music Theory II (3 hrs)
- MUSC118 Music Literature I (1 hr)
- MUSC119 Aural Skills I (1 hr)
- MUSC128 Music Literature II (1 hr)
- MUSC129 Aural Skills II (1 hr)
- MUSC201 Music Theory III (3 hrs)
- MUSC202 Music Theory IV (3 hrs)
- MUSC218 Music Literature III (1 hr)
- MUSC219 Aural Skills III (1 hr)
- MUSC228 Music Literature IV (1 hr)
- MUSC229 Aural Skills IV (1 hr)
- MUSC241 Percussion (1 hr)
- MUSC274 Functional Guitar (2 hrs)
- MUSC301 History of Music (3 hrs)
- MUSC302 History of Music (3 hrs)
- MUSC305 Keyboard Skills (2 hrs)
- MUSC326 Conducting (2 hrs)
- MUSC328 Choral Conducting (2 hrs)
- MUSC413 Orchestration (2 hrs)
- Vocal Ensembles (8 hrs)

must include at least four semesters of MUSC131

One course from the following:

- MUSC211 Brass: Trumpet and Trombone (1 hr)
- MUSC212 Brass Class (1 hr)

One course from the following:

- MUSC261 Basic String Class: Violin (1 hr)
- MUSC262 String Class: Viola (1 hr)
- MUSC263 String: Cello and Double Bass (1 hr)

One course from the following:

- MUSC281 Basic Woodwind Class (1 hr)
- MUSC282 Woodwind: Flute and Saxophone (1 hr)
- MUSC283 Woodwind: Oboe and Bassoon (1 hr)

†Applied Music Courses.....22 hours

Principal instrument courses must be in either AVOC or APNO/AORG/AHPS

- Axxx112 Applied Music (2 hrs)
- Axxx114 Applied Music (2 hrs)
- Axxx212 Applied Music (2 hrs)
- Axxx214 Applied Music (2 hrs)
- Axxx312 Applied Music (2 hrs)
- Axxx314 Applied Music (2 hrs)
- Axxx412 Applied Music (2 hrs)
- Axxx414 Applied Music (2 hrs)

One option from the following:

Option I (if keyboard is secondary instrument)

- MUSC251 Functional Piano I (1 hr)
- MUSC252 Functional Piano II (1 hr)
- MUSC253 Functional Piano III (1 hr)
- MUSC254 Functional Piano IV (1 hr)
- APNO111/AORG111 Applied Music (1 hr)
- APNO113/AORG113 Applied Music (1 hr)

Option II (if voice is secondary instrument)

- AVOC111 Applied Music (1 hr)
- AVOC113 Applied Music (1 hr)
- AVOC211 Applied Music (1 hr)
- AVOC213 Applied Music (1 hr)
- AVOC311 Applied Music (1 hr)
- AVOC313 Applied Music (1 hr)

Professional Studies33 hours

The following courses may be taken before formal admission to the teacher education program:

100 clock hours of approved prestudent teaching field experiences (0 hrs)

- SPGN251 Education of Students with Exceptionalities (3 hrs)
- EDPS322 Human Development and Learning (4 hrs)

The following courses require formal admission to the teacher education program:

- SOFD328 Schools in a Multicultural Society (3 hrs)
- MUSC330 Music Education in the Elementary School (3 hrs)
- MUSC331 Music Education in the Secondary School (3 hrs)
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)
- EDUC496 Student Teaching (6 hrs)
- EDUC497 Student Teaching (6 hrs)

Program Total 143 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

‡A senior recital approval is required. Students must enroll in applied music during the semester a degree recital is performed.

The Music Therapy Equivalency Certificate

The music therapy post-baccalaureate certificate program is for students with a music degree from a National Association of Schools of Music accredited institution (or an equivalent institution outside of the United States) and an interest in specialized studies that will lead to meeting the eligibility requirements to take the certification examination in music therapy administered by the Certification Board for Music Therapists. Successful passing of this examination leads to the person being credentialed as a music therapist-board certified. The courses within this equivalency certificate

program are approved by the American Music Therapy Association, and accredited by the National Association of Schools of Music.

Admission

Students must satisfy admission requirements of the University, the Department of Music and Dance and the Music Therapy Program. Please Note that an audition is not required unless students want to take applied music lessons on their principal instrument while completing this certificate. Applied music may be required in secondary instruments to prepare the student to pass the EMU Music Therapy Competencies. Students must be admitted into the music therapy post-baccalaureate certificate program before enrolling in required course work. Requirements for admission into this certificate program include the following:

- Submission of the completed application, non-refundable application fee and all official undergraduate and graduate transcripts to undergraduate admissions in the Office of Admissions.
- The earned equivalent of a U.S. bachelor's degree in music from an accredited college or University.
- A personal interview with the coordinator of music therapy is required. This interview will explore the applicant's (1) interest in and general knowledge of music therapy, (2) music skills and (3) personal potential for being a successful music therapist.
- Applicants whose native language is not English must demonstrate English language proficiency.

Certificate Requirements

The post-baccalaureate music therapy equivalency certificate program must consist of all music therapy courses required for the bachelor of music therapy degree.

Courses in the sciences and in other areas to meet the American Music Therapy Association's educational standards are required.

Students must successfully demonstrate the EMU music therapy competencies in guitar, piano and voice before being eligible to enter the required clinical training (internship). Copies of the criteria for the competencies can be obtained from the coordinator of music therapy.

A specific program of study will be developed by the coordinator of music therapy, in consultation with the student, once the student is admitted into the equivalency certificate program.

Required Courses22 hours

- MUSC103 Introduction to Music Therapy (2 hrs)
- MUSC221 Methods and Materials in Music Therapy (2 hrs)
- MUSC222 Preclinical Training Practicum in Music Therapy I (1 hr)
- MUSC223 Preclinical Training Practicum in Music Therapy II (1 hr)
- MUSC303 Music Therapy Principles I (4 hrs)
- MUSC304 Music Therapy Principles II (4 hrs)
- MUSC404 Psychology of Music I (2 hrs)
- MUSC405 Psychology of Music II (2 hrs)
- MUSC424 Preclinical Training Practicum in Music Therapy III (1 hr)
- MUSC425 Preclinical Training Practicum in Music Therapy IV (1 hr)
- MUSC488 Clinical Training in Music Therapy (2 hrs)

Additional Requirements0-15 hours

Other courses may be required depending on the course content of the student's previous degree(s). Additional courses that are often required are:

- MUSC326 Conducting (2 hrs)
- MUSC413 Orchestration (2 hrs)
- PEGN dance activity courses or DANC course (2 hrs)
- PSY360 Abnormal Psychology (3 hrs)
- SPGN251 Education of Exceptional Children (3 hrs)
- ZOOL326 Human Physiology (3 hrs)

†Certificate Total22 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

‡The number of required hours for the certificate depend upon the student's undergraduate degree.

Dance Minor

Students planning admission to the dance minor must complete the following:

1. An audition into the program;
2. An application at www.emich.edu/dance/html/dance_future.html;
3. A course of study planned with a dance adviser upon admission into the program.

Minor Requirements	30-32 hours
DANC107 Rhythmic Analysis and Dance Accompaniment (3 hrs)	
DANC245 Elements of Dance Composition (3 hrs)	
DANC350 History of Dance (3 hrs)	
DANC255 Dance Production (3 hrs)	
DANC450 Advanced Dance Composition (4 hrs)	
DANC455 Seminar in Dance (2 hrs)	
Two levels of Modern Dance Technique I-IV (DANC110, DANC11, DANC210 and DANC211) (6 hrs)	
Two levels of Classical Ballet Technique I-IV (DANC108, DANC109, DANC208 or DANC209) (6 hrs)	
One level of Jazz I-II (DANC 101 or DANC201) (2 hrs)	

Minor Total 30-32 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

General Music Minor

Students seeking admission to the general minor in music must complete an application at the Department of Music and Dance office and take an applied music audition and basic musicianship examination.

Required Courses	16 hours
MUSC101 Music Theory I (3 hrs)	
MUSC102 Music Theory II (3 hrs)	
MUSC118 Music Literature I (1 hr)	
MUSC119 Aural Skills (1 hr)	
MUSC128 Music Literature II (1 hr)	
MUSC129 Aural Skills II (1 hr)	
MUSC251 Functional Piano I (1 hr)	
MUSC252 Functional Piano II (1 hr)	
Ensembles (2 hrs)	
Applied Music	
Axxx111 Applied Music (1 hr)	
Axxx113 Applied Music (1 hr)	

Electives..... 4 hours
Any music courses for which the student meets the prerequisites

Minor Total 20 hours

Department of Physics and Astronomy

Address: 303 Strong Hall
Phone: 734.487.4144
E-mail: aoakes@emich.edu
Web site: www.physics.emich.edu/index.htm

See pages 256, 346 and 352 for course descriptions.

The Department of Physics and Astronomy offers majors in physics, physics research, engineering physics and physics teaching. Minors are offered in astronomy, general science, physics and physics teaching. The department also administers interdisciplinary offerings in pre-engineering, applied science, general science and integrated science teaching. Transfer students who wish to major in physics, physics research or engineering physics must take a minimum of nine credit hours at the 300-level or above in this department. Transfer students who wish to minor in these areas must take a minimum of six credit hours of course work at the 300-level or above in this department.

Graduate study leads to the master's degree in physics research, physics education or general science. These programs are described in the graduate catalog.

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.

The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

B.S. Physics, Secondary Education—Concordia University

B.S. Pre-engineering—University of Detroit-Mercy

See page 11 for further information

Engineering Physics Major

Students following this program will earn a bachelor of science degree with a major in physics and will have a strong background in engineering mechanics. Graduates will be well qualified to fill engineering-oriented positions. No minor is required.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 62 hours
Required Math Courses 18 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH325 Differential Equations (3 hrs)

Required Physics Courses 26 hours

- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PHY360 Heat and Thermodynamics (4 hrs)
- PHY370 Introduction to Modern Physics (3 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)
- PHY420 Capstone Project (3 hrs)
- PHY456 Electronics for Scientists (4 hrs)

Required Engineering Mechanics Courses 11 hours

- PHY229 Strength and Elasticity of Materials (4 hrs)
- PHY230 Engineering Dynamics (4 hrs)
- PHY485 Fluid Dynamics (3 hrs)

Physics Elective Courses 7 hours

- Seven hours from the following:*
- PHY332 Mechanics Laboratory (1 hr)
 - PHY350 Electricity and Magnetism I (3 hrs)
 - PHY431 Intermediate Mechanics II (3 hrs)

- PHY436 Vibration and Sound (4 hrs)
- PHY442 Optics and Optics Laboratory (4 hrs)
- PHY444 Applied Optics (2 hrs)
- PHY458 Electronic Devices for Scientists (4 hrs)
- PHY471 Atomic and Nuclear Physics (3 hrs)
- PHY475 Introduction to Quantum Mechanics (3 hrs)
- PHY481 Mathematical Physics (3 hrs)
- PHY497/498/499 Independent Study (with prior department approval) (1/2/3 hrs)

Additional Requirements 11 hours
 CHEM121/122 General Chemistry I with lab (3/1 hrs)
 CHEM123/124 General Chemistry II with lab (3/1 hrs)
 COSC111 Introduction to Programming (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 11 hours

Program Total 124 hours

Note:
 Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.
 Students desiring a mathematics minor must take MATH211 Introduction to Mathematical Proof (3 hrs) or MATH360 Statistical Methods (3 hrs) or MATH370 Probability and Statistics I (4 hrs) to complete the minor.

Physics Major

This major is provided for students who desire a general cultural education with an emphasis on physics, who are preparing for work in another field such as premedicine or prelaw, or who are interested in combining physics with an allied field such as biology, chemistry, astronomy, geology or with the field of business.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 33 hours

Required Courses 29 hours

- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PHY330 Intermediate Mechanics I (3 hrs)
- PHY332 Mechanics Laboratory I (1 hr)
- PHY350 Electricity and Magnetism I (3 hrs)
- PHY360 Heat and Thermodynamics (4 hrs)
- PHY370 Introduction to Modern Physics (3 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)
- PHY420 Capstone Project (3 hrs)

Restricted Elective Courses 2-4 hours

- One laboratory course from the following:*
- PHY436 Vibration and Sound (4 hrs)
 - PHY442 Optics and Optics Laboratory (4 hrs)
 - PHY444 Applied Optics (2 hrs)
 - PHY456 Electronics for Scientists (4 hrs)

Elective Courses 0-3 hours

Only physics or astronomy undergraduate courses numbered greater than 299 can be used as electives on this major, excluding ASTR311, PHY311, PHY312 and PHY325 which cannot be used on this major.

Additional Requirements 18 hours
 COSC111 Introduction to Programming (3 hrs)
 MATH120 Calculus I (4 hrs)
 MATH121 Calculus II (4 hrs)
 MATH122 Elementary Linear Algebra (3 hrs)

MATH223 Multivariable Calculus (4 hrs)

Minor Requirements 20 hours
A Mathematics minor is highly recommended.

University Elective Courses 13 hours

Program Total 124 hours

Note:
 Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Physics Research Major

The physics research major provides the necessary background for those planning to become professional physicists. The requirements listed below ensure adequate depth and breadth of subject matter in both theoretical and experimental physics and in mathematics. Students successfully completing this major are prepared to enter technical positions in government or industrial research, or to undertake graduate study in physics. Further work at the graduate level is highly recommended. No minor is required.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 57 hours

Required Mathematics Courses 18 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- MATH325 Differential Equations (3 hrs)

Required Physics Courses 32 hours

- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PHY330 Intermediate Mechanics I (3 hrs)
- PHY332 Mechanics Laboratory (1 hr)
- PHY350 Electricity and Magnetism I (3 hrs)
- PHY360 Heat and Thermodynamics (4 hrs)
- PHY370 Introduction to Modern Physics (3 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)
- PHY420 Capstone Project (3 hrs)
- PHY475 Introduction to Quantum Mechanics (3 hrs)

Restricted Elective Courses 2-4 hours

- One of the following laboratory courses:*
- PHY436 Vibration and Sound (4 hrs)
 - PHY442 Optics and Optics Laboratory (4 hrs)
 - PHY444 Applied Optics (2 hrs)
 - PHY456 Electronics for Scientists (4 hrs)

Elective Courses 3-5 hours

Only ASTR and PHY undergraduate courses numbered greater than 299 can be used as electives on this major, excluding ASTR311, PHY311, PHY312 and PHY325 which can never be used on this major. For those planning to pursue graduate studies in physics, PHY450 Electricity and Magnetism II is strongly recommended.

Additional Requirements 7 hours
 CHEM121/122 General Chemistry I with lab (4 hrs)
 COSC111 Introduction to Programming (3 hrs)

Minor Requirements 0 hours
No minor is required to complete the 39 hour requirement.

University Elective Courses 20 hours

Program Total..... 124 hours

Note:

Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Students desiring a mathematics minor must take MATH211 Introduction to Mathematical Proof (3 hrs) or MATH360 Statistical Methods (3 hrs) or MATH370 Probability and Statistics I (4 hrs) to complete the minor.

Group Major/Minor in General Science

This 56-hour major and minor combination encompasses five areas of study: biology, chemistry, earth science, mathematics and physics. Students must follow regular department requirements to complete a 20-hour cognate minor in one of the areas listed above and a 36-hour group major composed of courses from the other four areas.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Group Major (36-37 hrs) with
Cognate Minor (20-22 hrs).....56-59 hours
Cognate minor in one of the
following five science areas:20-22 hours

- Biology (22 hrs)
- Chemistry (20–21 hrs)
- Earth science (21 hrs)
- Mathematics (20 hrs)
- Physics (21 hrs)

Select courses for your minor in consultation with an adviser in the appropriate department.

Group Major36-37 hours

With a biology minor, take the following for the group major:

- ASTR205 Principles of Astronomy (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- MATH105 College Algebra (3 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

†Approved elective courses in chemistry, earth science, mathematics and physics (8 hrs)

With a chemistry minor, take the following for the group major:

- ASTR205 Principles of Astronomy (4 hrs)
- BIOL105 Introductory Biology for Non-majors (4 hrs)
- BIOL224 Global Ecology and the Environment (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- MATH105 College Algebra (3 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

†Approved elective courses in biology, earth science, mathematics and physics (4 hrs)

With an earth science minor, take the following for the group major:

- ASTR205 Principles of Astronomy (4 hrs)
- BIOL110 Introductory Biology I (5 hrs)
- BIOL224 Global Ecology and the Environment (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- MATH105 College Algebra (3 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

†Approved elective courses in biology, chemistry, mathematics and physics (7 hrs)

With a mathematics minor, take the following for the group major:

- ASTR205 Principles of Astronomy (4 hrs)
- BIOL110 Introductory Biology I (5 hrs)
- BIOL224 Global Ecology and the Environment (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

†Approved elective courses in biology, chemistry, earth science and physics (5 hrs)

With a physics minor, take the following for the group major:

- ASTR205 Principles of Astronomy (4 hrs)
- BIOL110 Introductory Biology I (5 hrs)
- BIOL224 Global Ecology and the Environment (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)

†Approved elective courses in biology, chemistry, earth science and mathematics (5 hrs)

Minor Requirements 0 hours

University Elective Courses25-28 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Approved Elective Courses:

- ASTR204 Astronomical Investigations (1 hr)
- BIOL205 Field Biology (4 hrs)
- BOTN130 Biology of Plants (4 hrs)
- CHEM123 General Chemistry II (3 hrs)
- CHEM124 General Chemistry II Laboratory (1 hr)
- CHEM270 Survey of Organic Chemistry (4 hrs)
- CHEM271 Organic Chemistry Laboratory (1 hr)
- COSC145 Introduction to FORTRAN Programming (3 hrs)
- ESSC114 National Parks and Monuments (2 hrs)
- ESSC228 Mineralogy (4 hrs)
- ESSC320 Oceanography (3 hrs)
- ESSC229 Rocks and Minerals (2 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH223 Multivariable Calculus (4 hrs)
- PHY330 Intermediate Mechanics I (3 hrs)
- PHY370 Introduction to Modern Physics (3 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
- PSCI305 Energy and Society (3 hrs)
- PSCI309 Thermal Science and Heat Transfer (3 hrs)
- PSCI340 Milestones in Physics and Astronomy (3 hrs)
- ZOOL140 Biology of Animals (4 hrs)

This list is not complete; consult with the general science adviser for other possible courses.

Physical Science Group Major

Secondary Teacher Certification

A secondary physical science endorsement prepares candidates to teach physical science courses as identified in the Michigan Curriculum Framework. The preparation of physical science teachers includes courses in all

of the major categories of science with a strong focus on basic chemistry and physics. Coupling this group major with a minor in one of the sciences (biology, chemistry, earth science or physics), as required, additionally qualifies a student to apply for certification in that subject at the secondary level. Candidates who apply for the secondary physical science endorsement must pass the Michigan Test for Teacher Certification in physical science (DP).

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Option 1: With a Physics teaching minor (PHYT - 21 hrs), complete the following courses:

Required Physical Science Courses..... 36-37 hrs

- ASTR205 Principles of Astronomy (4 hrs)
- CHEM121/122 General Chemistry I and Lab (4 hrs)
- CHEM123/124 General Chemistry II and Lab (4 hrs)
- CHEM270/271 Survey of Organic Chemistry and Lab (5 hrs)
- CHEM281 Quantitative Analysis (4 hrs)
- CHEM351 Foundations of Biochemistry (4 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- PSCI340 Milestones in Physics and Astronomy (3 hrs)

Choose one of the following:

- CHEM406 The Nature of Science (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)

Choose one of the following:

- ASTR315 Observational Astronomy (3 hrs)
- ESSC111 The Earth System Through Time (4 hrs)

Additional Requirements

- Life Science Course.....4 hrs
- BIOL105 Introductory Biology for non-majors (4 hrs)
- Mathematics Course(s)4-5 hrs

One of the following options:

- Option 1
 - MATH107 Plane Trigonometry (2 hrs)
 - MATH119 Applied Calculus (3 hrs)
- Option 2
 - MATH120 Calculus I (4 hrs)

Professional Studies (in addition to the normal requirements)
 Under: Phase II Content Methods, Literacy and Technology

One from the following:

- PHY325 Methods of Teaching the Physical Sciences (3 hrs)
- CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)

Option 2: With a Chemistry teaching minor (CHMT - 24 hrs), complete the following courses:

Required Physical Science Courses..... 37 hrs

- ASTR205 Principles of Astronomy (4 hrs)
- ASTR315 Observational Astronomy (3 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
- PSCI305 Energy and Society (3 hrs)
- PSCI309 Thermal Science and Heat Transfer (3 hrs)
- PSCI340 Milestones in Physics and Astronomy (3 hrs)

Choose one of the following:

- CHEM406 The Nature of Science (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)

Additional Requirements

- Life Sciences Course.....4 hrs
- BIOL105 Introductory Biology for non-majors (4 hrs)

Mathematics course(s).....4-5 hrs

One of the following options:

- Option 1
 - MATH107 Plane Trigonometry (2 hrs)
 - MATH119 Applied Calculus (3 hrs)
- Option 2
 - MATH 120 Calculus I (4 hrs)

Professional Studies (in addition to the normal requirements)
 Under: Phase II Content Methods, Literacy and Technology

One from the following:

- PHY325 Methods of Teaching the Physical Sciences (3 hrs)
- CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)

Option 3: With a Biology teaching minor (BIOT - 24 hrs), complete the following courses:

Required Physical Science Courses..... 39 hrs

- CHEM121/122 General Chemistry I and Lab (4 hrs)
- CHEM123/124 General Chemistry II and Lab (4 hrs)
- CHEM270/271 Survey of Organic Chemistry and Lab (5 hrs)
- CHEM281 Quantitative Analysis (4 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
- PSCI305 Energy and Society (3 hrs)
- PSCI309 Thermal Science and Heat Transfer (3 hrs)
- PSCI340 Milestones in Physics and Astronomy (3 hrs)

Choose one of the following:

- CHEM406 The Nature of Science (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)

Additional Requirements

- Life Science Course.....5 hrs
- BIOL110 Introductory Biology I (5 hrs)
- Mathematics Course(s)4-5 hrs

One of the following options:

- Option 1
 - MATH107 Plane Trigonometry (2 hrs)
 - MATH119 Applied Calculus (3 hrs)
- Option 2
 - MATH120 Calculus I (4 hrs)

Professional Studies (in addition to the normal requirements)
 Under: Phase II Content Methods, Literacy and Technology

One from the following:

- PHY325 Methods of Teaching the Physical Sciences (3 hrs)
- CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)

Option 4: With an Earth Science teaching minor (ESCT - 21 hrs), complete the following courses:

Required Physical Science Courses..... 43 hrs

- CHEM 121/122 General Chemistry I and Lab I (4 hrs)
- CHEM123/124 General Chemistry II and Lab (4 hrs)
- CHEM270/271 Survey of Organic Chemistry and Lab (5 hrs)
- CHEM281 Quantitative Analysis (4 hrs)
- CHEM351 Foundations of Biochemistry (4 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)
- PHY372 Modern Physics Laboratory (1 hr)
- PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
- PSCI305 Energy and Society (3 hrs)
- PSCI309 Thermal Science and Heat Transfer (3 hrs)
- PSCI340 Milestones in Physics and Astronomy (3 hrs)

Choose one of the following:

- CHEM406 The Nature of Science (1 hr)
- PHY406 Ethical Issues in Physics (1 hr)

Additional Requirements

Life Science Course.....4 hrs
BIOL105 Introductory Biology for non-majors (4 hrs)
Mathematics Course(s)4-5 hrs

One of the following options:

Option 1
MATH107 Plane Trigonometry (2 hrs)
MATH119 Applied Calculus (3 hrs)

Option 2
MATH120 Calculus I (4 hrs)

Professional Studies (in addition to the normal requirements)
Under: Phase II Content Methods, Literacy and Technology

One from the following:

PHY325 Methods of Teaching the Physical Sciences (3 hrs)
CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)

Minor Requirements20 hours
Must choose either a physics, chemistry, earth science or biology minor.

University Elective Courses9-16 hours

Program Total 124 hours

Note:

Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Physical Science Comprehensive Major

Secondary Teacher Certification

A comprehensive secondary physical science endorsement prepares candidates to teach physical science courses as identified in the Michigan Curriculum Framework. A minor is not required in this comprehensive group major. The preparation of physical science teachers includes courses in all of the major categories of science with a strong focus on basic chemistry and physics. Candidates who apply for the secondary physical science endorsement must pass the Michigan Test for Teacher Certification in physical science (DP).

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....55-56 hours

Required Physical Science Courses..... 55-56 hrs

CHEM121/122 General Chemistry I and Lab (4 hrs)
CHEM123/124 General Chemistry II and Lab (4 hrs)
CHEM270/271 Survey of Organic Chemistry and Lab (5 hrs)
CHEM281 Quantitative Analysis (4 hrs)
CHEM351 Foundations of Biochemistry (4 hrs)

Choose one of the following:

CHEM406 The Nature of Science (1 hr)
PHY406 Ethical Issues in Physics (1 hr)
PHY221 Mechanics, Sound and Heat (4 hrs)
PHY222 Electricity and Light (4 hrs)
PHY372 Modern Physics Laboratory (1 hr)
PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
PSCI305 Energy and Society (3 hrs)
PSCI309 Thermal Science and Heat Transfer (3 hrs)
PSCI340 Milestones in Physics and Astronomy (3 hrs)
ESSC110 The Dynamic Earth System (4 hrs)
ASTR205 Principles of Astronomy (4 hrs)

One from the following:

ASTR315 Observational Astronomy (3 hrs)
ESSC111 The Earth System Through Time (4 hrs)

Choose one of the following:

CHEM406 The Nature of Science (1 hr)
PHY406 Ethical Issues in Physics (1 hr)

Additional Requirements8-9 hours

Life Science Course4 hrs

BIOL105 Introductory Biology for non-majors (4 hrs)

Mathematics Course(s)4-5 hrs

One of the following options:

Option 1
MATH107 Plane Trigonometry (2 hrs)
MATH119 Applied Calculus (3 hrs)

Option 2
MATH120 Calculus I (4 hrs)

Professional Studies (in addition to normal requirements)
Under: Phase II Content Methods, Literacy and Technology

One from the following:

PHY325 Methods of Teaching the Physical Sciences (3 hrs)
CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 16-18 hours

Program Total 124 hours

Note:

Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Physics Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in physics, certification code DE, and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Science Teachers Association. The Michigan Test for Teacher Certification (MTTC) covering this field is #19, "Physics."

An active articulation agreement exists between this program and Concordia University.

See page 11 for further information

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements35 hours

Required Courses31 hours

ASTR204 Astronomical Investigations (1 hr)
ASTR205 Principles of Astronomy (4 hrs)
PHY223 Mechanics and Sound (5 hrs)
PHY224 Electricity and Light (5 hrs)
PHY330 Intermediate Mechanics I (3 hrs)
PHY332 Mechanics Laboratory (1 hr)
PHY350 Electricity and Magnetism I (3 hrs)
PHY360 Heat and Thermodynamics (4 hrs)
PHY370 Introduction to Modern Physics (3 hrs)
PHY372 Modern Physics Laboratory (1 hr)
PHY406 Ethical Issues in Physics (1 hr)

Restricted Electives..... 1-4 hours

One of the following laboratory courses:

- PHY436 Vibration and Sound (4 hrs)
- PHY442 Optics and Optics Laboratory (4 hrs)
- PHY444 Applied Optics (2 hrs)
- PHY456 Electronics for Physicists (4 hrs)

Elective Courses..... 0-3 hours

Select elective courses in physics and astronomy to complete the 35 hour requirement. Only ASTR and PHY undergraduate courses numbered greater than 299 can be used as electives on this major, excluding ASTR311, PHY311, PHY312 and PHY325 which can never be used on this major.

Professional Studies 39 hours

Pre-admission phase: The Learner

and the Community..... 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context..... 10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- PHY325 Methods of Teaching the Physical Sciences (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience 12 hours

- EDUC492 Student Teaching (12 hrs)

Additional Requirements 19 hours

- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)

One of the following:

- CHEM115/116 Chemistry and Society with lab (4 hrs)
- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)

One of the following:

- BIOL105 Introductory Biology for Non-majors (4 hrs)
- BOTN130 Biology of Plants (4 hrs)
- ZOOL140 Biology of Animals (4 hrs)

Minor Requirements 20 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs (mathematics is highly recommended).

Program Total 153 hours

Note:

Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Secondary Integrated Science Comprehensive Group Major

Secondary Teacher Certification

A secondary integrated science endorsement program prepares candidates to teach only integrated science courses. The preparation of integrated science teachers includes courses in the three major categories of science identified in the Michigan Curriculum Framework: life, physical and earth/space science. Candidates who apply for the secondary integrated science endorsement must pass the Michigan Test for Teacher Certification in integrated science at the secondary level. Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in general science, certification code DI. The Michigan Test for Teacher Certification (MTTC) covering this field is #94, "Science."

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Comprehensive Major Requirements 57-58 hours

Life Sciences Courses 14 hours

- BIOL110 Introductory Biology I (5 hrs)
- BIOL120 Introductory Biology II (5 hrs)
- BIOL224 Global Ecology and the Environment (4 hrs)

Physical Sciences Courses..... 20 hours

- CHEM120 Fundamentals of Organic & Biochemistry (4 hrs)
- CHEM121/122 General Chemistry I (with lab) (4 hrs)
- CHEM123/124 General Chemistry II (with lab) (4 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

Earth/Space Sciences Courses 18 hours

- ASTR205 Principles of Astronomy (4 hrs)
- ASTR315 Observational Astronomy (3 hrs)
- ESSC110 The Dynamic Earth System (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC212 Weather, Climate and the Earth System (3 hrs)

Additional Required Courses..... 5-6 hours

Choose one option from the following:

- MATH119 Applied Calculus (3 hrs) and MATH107 Plane Trigonometry (2 hrs)
- MATH120 Calculus I (4 hrs)

One course from the following:

- PHY406 Ethical Issues in Physics (1 hr)
- CHEM406 The Nature of Science (1 hr)
- BIOL406 The Nature of Science (1 hr)
- ESSC106 The Nature of Science (1 hr)

Professional Studies 39 hours

Pre-admission phase: The Learner

and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context..... 10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

One course from the following:

- BIOL403 Methods and Materials for Teaching Biology (3 hrs)

ESSC347 Teaching Earth Science and Physical Geography (3 hrs)
PHY325 Methods of Teaching the Physical Sciences (3 hrs)
CHEM325 Methodology for Secondary Chemistry Teachers (3 hrs)
Phase III: Capstone Experience 12 hours
EDUC492 Student Teaching (12 hrs)

Minor Requirements 0 hours

Program Total 136-137 hours

Note:

Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

Astronomy Group Minor

This minor is designed to give the student a basic knowledge of astronomy and related fields. It is recommended that students wishing to undertake graduate work in astronomy complete the research major in physics with a minor in either mathematics or astronomy. Electives used to fulfill the astronomy minor cannot be used to complete any other major or minor.

Required Courses 11 hours

ASTR204 Astronomical Investigations (1 hr)
ASTR205 Principles of Astronomy (4 hrs)
ASTR315 Observational Astronomy (3 hrs)
ASTR370 Astrophysical Concepts (3 hrs)

Restricted Elective Courses 13 hours

Choose 13 credits from approved courses in physics, astronomy, mathematics or chemistry in consultation with the advising coordinator for astronomy.

Minor Total 24 hours

Group Minor in General Science

A group minor in general science (24 credit hours) must be combined with an academic major in biology, chemistry, earth science, mathematics or physics.

With a major in biology, take the following courses:

ASTR205 Principles of Astronomy (4 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
ESSC110 The Dynamic Earth System (4 hrs)
MATH105 College Algebra (3 hrs)
MATH107 Plane Trigonometry (2 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)

One course from the following:

CHEM123/124 General Chemistry II (3/1 hrs)
COSCI45 Introduction to FORTRAN Programming (3 hrs)
ESSC212 Weather, Climate and the Earth System (3 hrs)
PHY222 Electricity and Light (4 hrs)
Others as approved by general science adviser

With a major in chemistry, take the following courses:

ASTR205 Principles of Astronomy (4 hrs)
BIOL110 Introductory Biology I (5 hrs)
ESSC110 The Dynamic Earth System (4 hrs)
MATH105 College Algebra (3 hrs)
MATH107 Plane Trigonometry (2 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)

One course from the following:

BIOL224 Global Ecology and the Environment (4 hrs)
COSCI45 Introduction to FORTRAN Programming (3 hrs)
ESSC212 Weather, Climate and the Earth System (3 hrs)

PHY222 Electricity and Light (4 hrs)
Others as approved by general science adviser

With a major in mathematics, take the following courses:

ASTR205 Principles of Astronomy (4 hrs)
BIOL110 Introductory Biology I (5 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
ESSC110 The Dynamic Earth System (4 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)

One course from the following:

BIOL224 Global Ecology and the Environment (4 hrs)
CHEM123/124 General Chemistry I with lab (4 hrs)
ESSC212 Weather, Climate and the Earth System (3 hrs)
PHY222 Electricity and Light (4 hrs)
Others as approved by general science adviser

With a major in physics, take the following courses:

ASTR205 Principles of Astronomy (4 hrs)
BIOL110 Introductory Biology I (5 hrs)
CHEM121/122 General Chemistry I with lab (4 hrs)
ESSC110 The Dynamic Earth System (4 hrs)
MATH120 Calculus I (4 hrs)

One course from the following:

BIOL224 Global Ecology and the Environment (4 hrs)
CHEM123/124 General Chemistry I with lab (4 hrs)
COSCI45 Introduction to FORTRAN Programming (3 hrs)
ESSC212 Weather, Climate and the Earth System (3 hrs)
Others as approved by general science adviser

Minor Total 24-26 hours

Physical Science Minor

Successful completion of this minor, in the context of other science program requirements, qualifies the student for recommendation for endorsement in physical science at the secondary level. This minor must be combined with a secondary teaching major in either Chemistry or Physics. A secondary physical science endorsement prepares candidates to teach physical science courses as identified in the Michigan Curriculum Framework. Candidates who apply for the secondary physical science endorsement must pass the Michigan Test for Teacher Certification in physical science (DP).

With a Physics teaching major (PHYT), complete the following 24 hrs:

CHEM 121/122 General Chemistry I and Lab I (4 hrs)
CHEM123/124 General Chemistry II and Lab (4 hrs)
CHEM270/271 Survey of Organic Chemistry and Lab (5 hrs)
CHEM281 Quantitative Analysis (4 hrs)
CHEM351 Foundations of Biochemistry (4 hrs)
PSCI340 Milestones in Physics and Astronomy (3 hrs)

With a Chemistry teaching major (CHMT), complete the following 26-27 hrs:

ASTR205 Principles of Astronomy (4 hrs)
PHY222 Electricity and Light or PHY224 Electricity and Light (4/5 hrs)
PHY223 Mechanics and Sound (5 hrs)
PHY372 Modern Physics Laboratory (1 hr)
PSCI270 Relativity, Atomic and Nuclear Physics (3 hrs)
PSCI305 Energy and Society (3 hrs)
PSCI309 Thermal Science and Heat Transfer (3 hrs)
PSCI340 Milestones in Physics and Astronomy (3 hrs)

Minor Total 24-27 hours

Physics Minor

The Physics Major is provided for students who plan to work in industry, business, or government in an area where physics is useful, such as medicine, law, technical analysis and financial analysis.

Required Courses	21 hours
PHY223 Mechanics and Sound (5 hrs)	
PHY224 Electricity and Light (5 hrs)	
PHY330 Intermediate Mechanics I (3 hrs)	
PHY360 Heat and Thermodynamics (4 hrs)	
PHY370 Introduction to Modern Physics (3 hrs)	
PHY372 Modern Physics Laboratory (1 hr)	
Additional Requirements	15 hours
MATH120 Calculus I (4 hrs)	
MATH121 Calculus II (4 hrs)	
MATH122 Elements of Linear Algebra (3 hrs)	
MATH223 Multivariable Calculus (4 hrs)	
Minor Total	36 hours

Physics Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physics, certification code DE. The Michigan Test for Teacher Certification (MTTC) covering this field is #19, "Physics."

Required Physics and Astronomy Courses.....	21 hours
PHY223 Mechanics and Sound (5 hrs)	
PHY224 Electricity and Light (5 hrs)	
PHY330 Intermediate Mechanics I (3 hrs)	
PHY360 Heat and Thermodynamics (4 hrs)	
PHY370 Introduction to Modern Physics (3 hrs)	
PHY372 Modern Physics Laboratory (1 hr)	
Additional Requirements	15 hours
MATH120 Calculus I (4 hrs)	
MATH121 Calculus II (4 hrs)	
MATH122 Elementary Linear Algebra (3 hrs)	
MATH223 Multivariable Calculus (4 hrs)	
Minor Total for Science Majors.....	36 hours

Students minoring in Physics with secondary certification, but not majoring in a science teaching certification program, must take the following courses:

- PHY325 Methods for Teaching the Physical Sciences (3 hrs)
- *PHY406 Ethical Issues in Physics (1 hr)

Minor Total for Non-Science Majors.....	40 hours
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Note:
*CHEM406, ESSC406, or BIOL406 may be substituted for PHY406.

Pre-Engineering Program

This program is a two-year program designed for the student who wishes to transfer to an engineering program at another University. Students are strongly advised to consult with the engineering school to which they plan to transfer for specific requirements. Courses taken may apply to other majors at the University if the student chooses to remain on campus to complete a bachelor's degree.

Pre-engineering advisers in the department maintain contact with universities that offer related four-year programs in order to maximize the value of the transfer program of study at the University to other universities.

Currently we offer a formal program with the University of Detroit-Mercy and transfer agreements with the University of Michigan in Ann Arbor and the University of Michigan in Dearborn.

An active articulation agreement exists between this program and the University of Detroit-Mercy.

See page 11 for further information

Required Mathematics Courses.....	18 hours
MATH120 Calculus I (4 hrs)	
MATH121 Calculus II (4 hrs)	
MATH122 Elementary Linear Algebra (3 hrs)	
MATH223 Multivariable Calculus (4 hrs)	
MATH325 Differential Equations (3 hrs)	
Required Physics Courses.....	18 hours
PHY223 Mechanics and Sound (5 hrs)	
PHY224 Electricity and Light (5 hrs)	
PHY229 Strength and Elasticity of Materials (4 hrs)	
PHY230 Engineering Dynamics (4 hrs)	

Other Required Courses	16 hours
CHEM121/122 General Chemistry I with lab (4 hrs)	
COSC246 Programming in C++ (3 hrs)	
ECON201 Principles of Macroeconomics (3 hrs)	
ENGL121 Composition II: Researching the Public Experience (3 hrs)	
One literature course (3 hrs)	

†Electives	15 hours
BIOL110 Introductory Biology (5 hrs)	
CHEM123/124 General Chemistry II/Laboratory (3/1 hrs)	
CHEM341 Fundamentals of Material Science (3 hrs)	
CHEM371/372/373 Organic Chemistry I/II/Laboratory (3/3/2 hrs)	
CTAS121 Fundamentals of Speech (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
ENGL225 Intermediate English Composition (3 hrs)	
PHY360 Heat and Thermodynamics (4 hrs)	
PHY370 Introduction to Modern Physics (3 hrs)	
PHY456 Electronics and Scientists (4 hrs)	
PHY471 Atomic and Nuclear Physics (3 hrs)	
PHY485 Fluid Dynamics (3 hrs)	
More than three credit hours of computer science courses	
More than three credit hours of literature courses	
More than three credit hours of humanities courses	
More than three credit hours of social science courses	
Other courses with consultation	

Program Total	67 hours
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Note:
†All electives should be chosen in consultation with a pre-engineering adviser. Every engineering program has different requirements. Different fields in engineering (mechanical, electrical, nuclear, chemical, civil, aerospace, environmental, etc) requires different courses. Meeting with a pre-engineering adviser to develop a plan of study will maximize the value of your transfer program.

Department of Political Science

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See page 348 for course descriptions.

What is Political Science?

Political science is the study of governments, public policies and political behavior. It uses both humanistic and scientific perspectives and skills to examine all countries and regions of the world. It reflects an interest in American politics and international affairs; critical issues such as health, the environment, or civil rights; and theories concerning the ideal government and how power and resources are allocated in society.

What careers are possible with a major in the political science department?

Political science students have a versatility of skills and a wide range of exciting careers in federal, state and local governments; law; business; international organizations; nonprofit associations and organizations; campaign management and polling; journalism; pre-collegiate education; electoral politics; research and University and college teaching. Upon graduation, many continue on to master's and doctoral studies in political science, public administration, international relations, public policy and law.

What majors and minors are offered in the department?

The Department of Political Science offers a major and a minor in Political Science, but also more specialized programs in Public Law and Government (for those interested in the study and practice of law), Political Science for Teachers (for those interested in teaching high school), Public Administration (for those interested in state, federal, or local government administrative jobs), Public Safety Administrations (for those interested in police, fire and emergency management), and Nonprofit Administration. In addition, the Department is the University-wide contact point for PreLaw Advising.

All members of the faculty serve as undergraduate advisers, available during posted office hours or by appointment. Students enrolled in all of the majors and minors offered by the department are strongly expected to consult a faculty adviser when they declare the major and/or minor and prior to registration for classes each semester.

Graduate study in the Department of Political Science consists of a master of public administration (MPA) degree and eight graduate certificates in specialized areas of public administration and nonprofit management. A political science concentration is also possible under the interdisciplinary master of arts in social science that is administered by the History and Philosophy Department. These graduate programs are described in detail in the graduate catalog.

Political Science Major

To fulfill the requirements for a major in political science, students must complete at least 30 hours in the major as specified below, complete at least four courses in the major numbered 300 or above and attain at least a C average in the major. Students are further encouraged to take PLSC112/113 American Government, as a general education course, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work. A maximum of three credit hours of independent study or internship/cooperative education courses may be applied to the 30 credit hours required for the major. Finally, neither the independent study, internship/cooperative education course, nor PLSC470 meets the group distribution requirements specified below under areas of concentration, but any may be taken as free political science electives. Students should consult a departmental adviser for guidance about applying these and special topics courses towards the major.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours
PLSC112 or 113 American Government (3 hrs)

Major Requirements.....30 hours
Required Core Courses 9 hours

One course from the following:

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC310 Methods of Political Research (3 hrs)

Two courses from the following:

- PLSC211 Introduction to Comparative Government (3 hrs)
- PLSC212 Introduction to International Politics (3 hrs)
- PLSC213 Introduction to Political Thought (3 hrs)

Areas of Concentration 21 hours

Seven courses from the three groups listed below, including at least one course from each group.

I. American Politics, Public Law and Administration

AAS243/PLSC243/WGST243 Black Women:

Politics and Racism (3 hrs)

AAS362/PLSC362/WGST362 Black Women:

Religion and Sexism (3 hrs)

PLSC202 State and Local Government (3 hrs)

PLSC216 Municipal Government (3 hrs)

PLSC270 Public Administration (3 hrs)

PLSC301 American Legal System (3 hrs)

PLSC305 Law and Policy in a Constitutional

Democracy (3 hrs)

PLSC312 Constitutional Law: Institutions and

Process (3 hrs)

PLSC313 Constitutional Law: Civil Rights and

Liberties (3 hrs)

PLSC314 Civil Mock Trial and Legal Process (3 hrs)

PLSC316 Criminal Mock Trial and Legal

Process (3 hrs)

PLSC330 Urban Politics (3 hrs)

PLSC332 Intergovernmental Relations and

Federalism (3 hrs)

PLSC335 Labor in American Politics (3 hrs)

PLSC352 Politics of Government Budgeting (3 hrs)

PLSC357 Campaigns and Elections (3 hrs)

PLSC358 Political Parties and Interest

Groups (3 hrs)

PLSC359 Public Opinion and Political

Learning (3 hrs)

PLSC364 Legislative Process (3 hrs)

PLSC365 Women and Politics (3 hrs)

PLSC380 American Presidency (3 hrs)

PLSC381 Public Policy Analysis (3 hrs)

PLSC385 Judicial Process and Behavior (3 hrs)

PLSC386 US Supreme Court Simulation (3 hrs)

II. Comparative Politics and International Relations

PLSC221 Vietnam (3 hrs)

PLSC222 War and Peace in the Nuclear Age (3 hrs)

PLSC308 Political Violence and Revolution (3 hrs)

PLSC311 Politics of the Developing World (3 hrs)

PLSC327 American Foreign Policy Process (3 hrs)

PLSC341 International Law (3 hrs)

PLSC342 International Organizations (3 hrs)

PLSC343/344 Model United Nations (3 hrs)

PLSC354 Government and Politics of

Canada (3 hrs)

PLSC361 Russian Politics in Transition (3 hrs)

PLSC367 Latin American Politics (3 hrs)

PLSC371 Government and Politics of the

Middle East (3 hrs)

PLSC372 Government and Politics of Sub-Saharan

Africa (3 hrs)

PLSC374 Asian Political Systems (3 hrs)

PLSC462 Russian Foreign Relations (3 hrs)

PLSC467 Advanced International Relations (3 hrs)

III. Political Theory

PLSC382 Politics and the 21st Century (3 hrs)

PLSC410 Political Science in Literature and

Film (3 hrs)

PLSC418 20th-Century Political Theory (3 hrs)

PLSC420 Democracy and Power (3 hrs)

PLSC422 American Political Theory (3 hrs)

Minor Requirements20 hours

University Elective Courses	31 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Public Administration Major

Public administration is a broad-ranging discipline that combines theory and practice, and focuses on the organization of government structure, policies and programs, and the performance of officials. Public administration encourages public policies that are more responsible to human, social and economic needs and that are more efficient and effective.

The public administration major involves a core of coursework in public administration and a choice of electives. It may be combined with any number of minors appropriate to the career interests of the student. Students who major in public administration enter a broad range of careers in government service (federal, state or local), nonprofit organizations or in business. Some go on to graduate or professional schools in political science, public administration, public policy, business administration or law.

A minor is to be selected in consultation with a public administration adviser. Recommended choices include: computer science, economics, general business, management or writing. Other appropriate minors include: communication, conservation and resource use, criminology and criminal justice, gerontology, historic preservation, journalism, health administration, land use analysis, military science, nonprofit administration, public law and government and social work.

Students are encouraged to take PLSC112/113 American Government as a General Education course prior to the required core courses and to complete PLSC112/113 within the first nine hours of political science coursework. With permission of the public administration adviser, six credit hours of internship credit (PLSC480, PLSC486/488/489) or six credit hours of cooperative education credit (PLSC387/487) may be applied to the major. Students should consult an adviser about including these and special topics courses as a part of their program of study.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours
PLSC112 American Government (3 hrs)

Major Requirements.....36 hours
Required Courses21 hours

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC334 Personnel Administration in Government (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC431 Theories of Public Organization (3 hrs)
- †PLSC480 Field Seminar/Internship (3 hrs)

Elective Courses.....15 hours

Five courses from the following:

- PLSC202 State and Local Politics (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC301 American Legal Systems (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC364 Legislative Process (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC470 Seminar in Political Science (3 hrs)
- †PLSC486 Internship (3 hrs)

Minor Requirements20 hours

University Elective Courses25 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†Up to six semester hours of internship credit (PLSC480, PLSC486, PLSC488 or PLSC489) or cooperative education credit (PLSC387 and PLSC487) may be applied to the major.

Public Law and Government Major

The Public Law and Government major focuses student attention on issues related to constitutional, criminal, comparative and international law, legal systems at the state, federal and international levels, and judicial process and behavior as well as alternative methods of dispute resolution. Students who major in public law and government may participate in the Mock Trial competitions and typically continue on to law school prior to a career practicing law. Students are encouraged to take PLSC112/113 American Government as a General Education course prior to the required core courses and to complete PLSC112/113 within the first nine hours of political science coursework. Students shall complete at EMU at least three courses in the major numbered 300 or above; and attain at least a C average in the major. A maximum of four credit hours of independent study or internship/cooperative education courses, or a combination of both, may be applied to the 36 credit hours required for the major.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours
PLSC112 American Government (3 hrs)

Major Requirements.....30 hours
Required Courses 12 hours

PLSC385 Judicial Process Behavior (3 hrs)

One course from each of the three following areas of public law

Area I:

- PLSC301 American Legal System (3 hrs)
- PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)

Area II:

- PLSC312 American Constitutional Law: Institutions and Process (3 hrs)
- PLSC313 American Constitutional Law: Civil Rights and Liberties (3 hrs)

Area III:

- PLSC341 International Law (3 hrs)
- PLSC412 Comparative Legal Systems (3 hrs)

Restricted Elective Courses 9 hours

One course from the following:

I. American politics and administration

- PLSC202 State and Local Government (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC335 Labor in American Politics (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC357 Campaigns and Elections (3 hrs)
- PLSC358 Political Parties and Interest Groups (3 hrs)
- PLSC359 Public Opinion and Political Learning (3 hrs)
- PLSC362 Black Women: Religion and Sexism (3 hrs)
- PLSC364 Legislative Process (3 hrs)
- PLSC365 Women and Politics (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)

- II. Comparative Politics and International Relations
 PLSC211 Introduction to Comparative Government (3 hrs)
 PLSC212 Introduction to International Politics (3 hrs)
 PLSC221 Vietnam (3 hrs)
 PLSC222 War and Peace in the Nuclear Age (3 hrs)
 PLSC308 Political Violence and Revolution (3 hrs)
 PLSC311 Politics of the Developing World (3 hrs)
 PLSC327 American Foreign Policy Process (3 hrs)
 PLSC342 International Organizations (3 hrs)
 PLSC343/344 Model United Nations (3 hrs)
 PLSC354 Government and Politics of Canada (3 hrs)
 PLSC361 Russian Politics in Transition (3 hrs)
 PLSC367 Latin American Politics (3 hrs)
 PLSC371 Government and Politics of the Middle East (3 hrs)
 PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
 PLSC374 Asian Political Systems (3 hrs)
 PLSC462 Russian Foreign Relations (3 hrs)
 PLSC467 Advanced International Relations (3 hrs)
- III. Political Theory and Methods
 PLSC210 Introduction to Political Analysis (3 hrs)
 PLSC213 Introduction to Political Thought (3 hrs)
 PLSC310 Methods of Political Research (3 hrs)
 PLSC382 Politics and the 21st Century (3 hrs)
 PLSC410 Political Science in Literature and Film (3 hrs)
 PLSC418 20th-Century Political Theory (3 hrs)
 PLSC420 Democracy and Power (3 hrs)
 PLSC422 American Political Theory (3 hrs)

Elective Courses 9 hours

Three courses from the following:

- ECON407 Economic Analysis and Law (3 hrs)
 HIST465 United States Constitutional History (3 hrs)
 PLSC301 The American Legal System (3 hrs)
 PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)
 PLSC312 Constitutional Law: Institutions and Process (3 hrs)
 PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)
 PLSC314 Civil Mock Trial and Legal Process (3 hrs)
 PLSC316 Criminal Mock Trial and Legal Process (3 hrs)
 PLSC341 International Law (3 hrs)
 PLSC385 Judicial Process and Behavior (3 hrs)
 PLSC386 US Supreme Court Simulation (3 hrs)
 PLSC387 Cooperative Education in Political Science (3 hrs)
 PLSC395 Supreme Court Simulation (3 hrs)
 PLSC412 Comparative Legal Systems (3 hrs)
 PLSC456 Criminal Law I (3 hrs)
 PLSC480 Field Seminar in Political Science/Public Administration (3 hrs)
 PLSC486 Internship in Political Science/Public Administration (3 hrs)
 PLSC487 Cooperative Education in Political Science (3 hrs)
 PLSC488/489 Internship in Political Science/Public Administration (6/9 hrs)
 PLSC497/498/499 Independent Study (1/2/3 hrs)

Minor Requirements20 hours

University Elective Courses31 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Courses may not be counted toward more than one requirement within the major.

Public Safety Administration Curriculum

The public safety administration program is an interdisciplinary program involving course work in three departments from two colleges within the University. The curriculum is intended to meet the professional development needs of in-service and entry-level personnel in public safety organizations including those involved in law enforcement, public safety, fire protection, private security, disaster and emergency management and corrections with a competency-based curriculum resting on a strong liberal arts foundation.

The public safety manager's focus is on leadership, public policy, politics and administration. The public safety manager is concerned with issues such as the causes of crime, the nature and impact of criminal behavior, threats to public safety arising from environmental and natural disasters and the nature and operation of correctional institutions. The administrator's responsibilities extend to addressing how the public safety organization develops a response to these problems, the nature of the response and how resources — budgets and personnel — are obtained, utilized and evaluated in responding to problems.

This program builds on the public administration major. Courses are drawn from five groups:

- An interdisciplinary, skills focused, foundation group
- An administration group directed towards developing an understanding of public and of nonprofit organizations and related personnel, budgeting and administrative skills
- A public safety administration group that addresses conditions, strategies and practices found particularly in public safety agencies
- An area concentration
- An academy or internship component

The program combines both major and minor requirements, and graduating students will be awarded a baccalaureate in public administration.

Transfer students from associate degree programs in related fields may matriculate into the program. Students transferring from another college must, however, complete all general education course work as required by the University for the bachelor's degree.

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements..... 63-64 hours

Foundation Group12 hours

One course from the following:

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
 ANTH214 U.S. Racial and Cultural Minorities (3 hrs)

One course from the following:

- PLSC202 State and Local Government (3 hrs)
 PLSC216 Municipal Government (3 hrs)
 PLSC330 Urban Politics (3 hrs)

One course from the following:

- CRM300 Criminal Justice (3 hrs)
 PLSC301 American Legal System (3 hrs)
 PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)

One course from the following:

- CTAC352 Communication in Negotiation (3 hrs)
 CTAC354 Organizational Communication (3 hrs)

Administration Group12 hours

- PLSC270 Public Administration (3 hrs)
 PLSC334 Personnel Administration in Government (3 hrs)
 PLSC352 Politics of Government Budgeting (3 hrs)

One course from the following:

- PS412 Organizational Behavior for Public Safety Managers (3 hrs)
 PLSC431 Theories of Public Organization (3 hrs)

Public Safety Administration Group18 hours

- PS380 Planning and Decision-Making for Public Safety (3 hrs)

PS381 Public Relations and Public Safety (3 hrs)	
PS438 Personnel for Public Safety Managers (3 hrs)	
PS439 Budgeting for Public Safety Managers (3 hrs)	
<i>One course from the following:</i>	
PLSC450 Managing Public Safety Agencies (3 hrs)	
PS453 Management Process for Public Safety Managers (3 hrs)	
<i>One course from the following:</i>	
PLSC451 Seminar in Public Safety Administration (3 hrs)	
SSC454 Issues and Skills for Senior Administrators (3 hrs)	
Area of Concentration	15-16 hours
<i>Five courses from the following:</i>	
CRM431 Policing in Society (3 hrs)	
ESSC324 Weather (3 hrs)	
ESSC325 Geomorphology (4 hrs)	
PS434 Hazardous Materials (3 hrs)	
SSC255 Emergency Preparedness Planning (3 hrs)	
SSC306 Issues in Emergency Preparedness (3 hrs)	
SSC309 Natural Hazard Mitigation (3 hrs)	
SSC433 Arson Investigation (3 hrs)	
SSC435 Incident Command (3 hrs)	
SSC452 Current Trends in Emergency Management (3 hrs)	
SSC475 Managing Correctional Agencies and Facilities (3 hrs)	
Academy or Internship/Co-op Experience	6 hours
<i>Preservice students must complete an internship or cooperative education placement or an accredited academy program; in-service students may substitute credits from an accredited academy program</i>	
PLSC488 Internship in Political Science/Public Administration (6 hrs)	
Minor Requirements	0 hours
<i>No minor is required.</i>	
University Elective Courses	20-21 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Political Science Teaching Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in political science, certification code CD, and, depending on the minor selected, endorsement in economics (CA), geography (CB), history (CC), psychology (CE), sociology (CF). The Michigan Test for Teacher Certification (MTTC) covering this field is #10, "Political Science."

To fulfill the requirements for a major in political science, students must complete at least 30 credit hours in the major as specified below, complete at EMU at least four courses in the major numbered 300 or above and attain at least a C average in the major. Students are encouraged to take PLSC112/113 as one of their general education courses, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work. A maximum of three credit hours of independent study or internship/cooperative education courses may be applied to the 30 credit hours required for the major. Finally, neither the independent study, internship/cooperative education course nor PLSC470 meets the group distribution requirements specified below under areas of concentration, but any may be taken as free political science electives.

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Additional Requirements	12 hours
HIST123 The United States to 1877 (3 hrs)	
HIST124 The United States, 1877 to the Present (3 hrs)	
PLSC112/113 American Government (3 hrs)	
<i>One course from the following:</i>	
GEOG107 Introduction to Geography (3 hrs)	
GEOG110 World Regions (3 hrs)	
Major Requirements	30 hours
Required Core Courses	15 hours
ECON375 Economic History of the United States (3 hrs)	
PLSC210 Introduction to Political Analysis (3 hrs)	
PLSC202 State and Local Government (3 hrs)	
<i>Two courses from the following:</i>	
PLSC211 Introduction to Comparative Government (3 hrs)	
PLSC212 Introduction to International Politics (3 hrs)	
PLSC213 Introduction to Political Thought (3 hrs)	
Area of Concentration	15 hours
<i>Five courses from the three groups listed below, including at least one course from each group:</i>	
I. American Politics, Public Law and Administration	
AAS362/PLSC362/WGST362 Black Women: Religion and Sexism (3 hrs)	
PLSC216 Municipal Government (3 hrs)	
PLSC243 Black Women: Politics and Racism (3 hrs)	
PLSC270 Public Administration (3 hrs)	
PLSC301 American Legal System (3 hrs)	
PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)	
PLSC312 Constitutional Law: Institutions and Process (3 hrs)	
PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)	
PLSC314 Civil Mock Trial and Legal Process (3 hrs)	
PLSC316 Criminal Mock Trial and Legal Process (3 hrs)	
PLSC330 Urban Politics (3 hrs)	
PLSC332 Intergovernmental Relations and Federalism (3 hrs)	
PLSC335 Labor in American Politics (3 hrs)	
PLSC352 Politics of Government Budgeting (3 hrs)	
PLSC357 Campaigns and Elections (3 hrs)	
PLSC358 Political Parties and Interest Groups (3 hrs)	
PLSC359 Public Opinion and Political Learning (3 hrs)	
PLSC364 Legislative Process (3 hrs)	
PLSC365 Women and Politics (3 hrs)	
PLSC380 American Presidency (3 hrs)	
PLSC381 Public Policy Analysis (3 hrs)	
PLSC385 Judicial Process and Behavior (3 hrs)	
PLSC386 US Supreme Court Simulation (3 hrs)	
II. Comparative Politics and International Relations	
PLSC221 Vietnam (3 hrs)	
PLSC222 War and Peace in the Nuclear Age (3 hrs)	
PLSC308 Political Violence and Revolution (3 hrs)	
PLSC311 Politics of the Developing World (3 hrs)	
PLSC327 American Foreign Policy Process (3 hrs)	
PLSC341 International Law (3 hrs)	
PLSC342 International Organizations (3 hrs)	
PLSC343/344 Model United Nations (3 hrs)	
PLSC354 Government and Politics of Canada (3 hrs)	
PLSC361 Russian Politics in Transition (3 hrs)	
PLSC367 Latin American Politics (3 hrs)	
PLSC371 Government and Politics of the Middle East (3 hrs)	
PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)	

- PLSC374 Asian Political Systems (3 hrs)
- PLSC462 Russian Foreign Relations (3 hrs)
- PLSC467 Advanced International Relations (3 hrs)
- III. Political Theory and Methods
- PLSC310 Methods of Political Research (3 hrs)
- PLSC382 Politics and the 21st Century (3 hrs)
- PLSC410 Political Science in Literature and Film (3 hrs)
- PLSC418 20th Century Political Theory (3 hrs)
- PLSC420 Democracy and Power (3 hrs)
- PLSC422 American Political Theory (3 hrs)

Minor Requirements 20-26 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Professional Studies 39 hours
Pre-Admission Phase: The Learner and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

- Phase I: Curriculum, Assessment and the Social Context 10 hours
- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

- Phase II: Content Methods, Literacy and Technology 9 hours
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- HIST481 The Teaching of Social Studies (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

- Phase III: Capstone Experience 12 hours
- EDUC492 Student Teaching (12 hrs)

Program Total 141-147 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Nonprofit Administration Minor

The Nonprofit Administration minor provides an opportunity for students to develop the knowledge and skills related to administrative responsibilities in the nonprofit sector. It is linked to and enables a student to fulfill the American Humanics Program's foundation and professional development competencies. The nonprofit minor requires that students without work experience in a nonprofit organization complete a 300 hour internship for credit in a 501(c)3 organization. Upon graduation, students may go on to work in such organizations as the American Red Cross, Boysville of Michigan, United Way, ACCESS, Freedom House and any of the multitudes of nonprofit social service, arts/cultural and political nonprofit organizations.

- Required Courses 15 hours
- ACC246 Accounting for Public and Nonprofit Administrators (3 hrs)
- PLSC336 Foundations of the U.S. Nonprofit Sector (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)

- General Nonprofit Management (choose one) 3 hours
- CTAC370 Nonprofit Organizational Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- PLSC435 Nonprofit Management and Leadership (3 hrs)
- SOCL462 Complex Organizations (3 hrs)
- Human Resource Development and Supervision (choose one) 3 hours
- CTAC370 Nonprofit Organizational Communication (3 hrs)
- MGMT384 Human Resource Management (3 hrs)
- PLSC334 Personnel Administration in Government (3 hrs)

Elective Courses 6-9 hours

Two or three courses (depending on whether an internship is required) from the following not previously been taken

- AAS231 Urbanization and the African American Community (3 hrs)
- AAS351 Social Context of African American Health (3 hrs)
- CTAC370 Nonprofit Organization (3 hrs)
- EDPS325 Life Span Human Growth and Development (4 hrs)
- JRNL314 Writing for Public Relations (3 hrs)
- JRNL408 Case Studies in Public Relations (3 hrs)
- LAW393 Law of Business and Nonprofit Enterprises (3 hrs)
- LAW403 Employment Law (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- PLSC434 Introduction to Board Development in Nonprofit Organizations (3 hrs)
- PLSC480 Field Seminar in Political Science/ Public Administration (internship) (3 hrs)
- PSY321 Child Psychology (3 hrs)
- PSY322 Psychology of Adolescence (3 hrs)
- SOCL214 Racial and Cultural Minorities (3 hrs)
- SOCL303 Sociology of Childhood and Youth (3 hrs)

Minor Total 21-24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Political Science Minor

Students are encouraged to take PLSC112/113 as one of their general education courses, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work.

Additional Requirements 3 hours
PLSC112/113 American Government (3 hrs)

Required Core Courses 6 hours
Two courses from the following:

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC211 Introduction to Comparative Government (3 hrs)
- PLSC212 Introduction to International Politics (3 hrs)
- PLSC213 Introduction to Political Thought (3 hrs)
- PLSC310 Methods of Political Research (3 hrs)

Area of Concentration 15 hours
Five courses from two of the three following groups:

- I. American Politics, Public Law and Administration
- PLSC202 State and Local Government (3 hrs)
- PLSC216 Municipal Government (3 hrs)

- PLSC243/ AAS243/ WMST243 Black Women: Politics and Racism (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC301 American Legal System (3 hrs)
- PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)
- PLSC312 Constitutional Law: Institutions and Process (3 hrs)
- PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)
- PLSC314 Civil Mock Trial and Legal Process (3 hrs)
- PLSC316 Criminal Mock Trial and Legal Process (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC335 Labor in American Politics (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC357 Campaigns and Elections (3 hrs)
- PLSC358 Political Parties and Interest Groups (3 hrs)
- PLSC359 Public Opinion and Political Learning (3 hrs)
- PLSC362 Black Women: Religion and Sexism (3 hrs)
- PLSC364 The Legislative Process (3 hrs)
- PLSC365 Women and Politics (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC386 US Supreme Court Simulation (3 hrs)

II. Comparative Politics and International Relations

- PLSC221 Vietnam (3 hrs)
- PLSC222 War and Peace in the Nuclear Age (3 hrs)
- PLSC308 Political Violence and Revolution (3 hrs)
- PLSC311 Politics of the Developing World (3 hrs)
- PLSC327 American Foreign Policy Process (3 hrs)
- PLSC341 International Law (3 hrs)
- PLSC342 International Organizations (3 hrs)
- PLSC343/344 Model United Nations (3 hrs)
- PLSC354 Government and Politics of Canada (3 hrs)
- PLSC361 Russian Politics in Transition (3 hrs)
- PLSC367 Latin American Politics (3 hrs)
- PLSC371 Government and Politics of the Middle East (3 hrs)
- PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
- PLSC374 Asian Political Systems (3 hrs)
- PLSC462 Russian Foreign Relations (3 hrs)
- PLSC467 Advanced International Relations (3 hrs)

III. Political Theory

- PLSC382 Politics and the 21st Century (3 hrs)
- PLSC410 Political Science in Literature and Film (3 hrs)
- PLSC418 20th Century Political Theory (3 hrs)
- PLSC420 Democracy and Power (3 hrs)
- PLSC422 American Political Theory (3 hrs)

Minor Total21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Public Administration Minor

Students are encouraged to take PLSC112/113 as one of their general education courses, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work.

Additional Requirements3 hrs
PLSC112/113 American Government (3 hrs)

Required Course 3 hours
PLSC270 Public Administration (3 hrs)

Restricted Elective Courses12 hours

Four of the following courses:

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC334 Personnel Administration in Government (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC431 Theories of Public Organization (3 hrs)
- PLSC480 Field Seminar/Internship (3 hrs)

Elective Courses 9 hours

Three courses from the following:

- PLSC202 State and Local Politics (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC301 American Legal Systems (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC364 Legislative Process (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC470 Seminar in Political Science (3 hrs)
- PLSC486 Internship (3 hrs)

Minor Total24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Public Law and Government Minor

Students must complete at Eastern Michigan University at least three courses in the public law and government minor numbered 300 or above. A maximum of four credit hours of independent study or internship/co-operative education courses may be applied to the 21 credit hours required for this minor. Students are encouraged to take PLSC112/113 as one of their general education courses, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work.

Additional Requirements3 hrs
PLSC112/113 American Government (3 hrs)

Required Courses12 hours
PLSC385 Judicial Process Behavior (3 hrs)

One course from each of the three following areas of public law

Area I:

- PLSC301 American Legal System (3 hrs)
- PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)

Area II:

- PLSC312 American Constitutional Law: Institutions and Process (3 hrs)
- PLSC313 American Constitutional Law: Civil Rights and Liberties (3 hrs)

Area III:

- PLSC341 International Law (3 hrs)
- PLSC412 Comparative Legal Systems (3 hrs)

Restricted Elective Courses 6 hours

Select two courses from two of the three following groups:

I. American Politics and Administration

- PLSC202 State and Local Government (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC335 Labor in American Politics (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC357 Campaigns and Elections (3 hrs)

- PLSC358 Political Parties and Interest Groups (3 hrs)
- PLSC359 Public Opinion and Political Learning (3 hrs)
- PLSC364 Legislative Process (3 hrs)
- PLSC365 Women and Politics (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)

II. Comparative Politics and International Relations

- PLSC211 Introduction to Comparative Government (3 hrs)
- PLSC212 Introduction to International Politics (3 hrs)
- PLSC221 Vietnam (3 hrs)
- PLSC222 War and Peace in the Nuclear Age (3 hrs)
- PLSC308 Political Violence and Revolution (3 hrs)
- PLSC311 Politics of the Developing World (3 hrs)
- PLSC327 American Foreign Policy Process (3 hrs)
- PLSC342 International Organizations (3 hrs)
- PLSC354 Government and Politics of Canada (3 hrs)
- PLSC361 Russian Politics in Transition (3 hrs)
- PLSC367 Latin American Politics (3 hrs)
- PLSC371 Government and Politics of the Middle East (3 hrs)
- PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
- PLSC374 Asian Political Systems (3 hrs)
- PLSC462 Russian Foreign Relations (3 hrs)
- PLSC467 Advanced International Relations (3 hrs)

III. Political Theory and Methods

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC213 Introduction to Political Thought (3 hrs)
- PLSC310 Methods of Political Research (3 hrs)
- PLSC382 Politics and the 21st Century (3 hrs)
- PLSC410 Political Science in Literature and Film (3 hrs)
- PLSC418 20th Century Political Theory (3 hrs)
- PLSC420 Democracy and Power (3 hrs)
- PLSC422 American Political Theory (3 hrs)

Other Elective Courses 3 hours

One courses from the following:

- ECON407 Economic Analysis and Law (3 hrs)
- HIST465 United States Constitutional History (3 hrs)
- PLSC301 The American Legal System (3 hrs)
- PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)
- PLSC312 Constitutional Law: Institutions and Process (3 hrs)
- PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)
- PLSC314 Civil Mock Trial and Legal Process (3 hrs)
- PLSC316 Criminal Mock Trial and Legal Process (3 hrs)
- PLSC341 International Law (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC386 US Supreme Court Simulation (3 hrs)
- PLSC412 Comparative Legal Systems (3 hrs)
- PLSC456 Criminal Law I (3 hrs)
- PLSC480 Field Seminar in Political Science/Public Administration (3 hrs)
- PLSC486 Internship in Political Science/Public Administration (3 hrs)
- PLSC487 Cooperative Education in Political Science (3 hrs)
- PLSC488/489 Internship in Political Science/Public Administration (6/9 hrs)
- PLSC497/498/499 Independent Study (1/2/3 hrs)

Minor Total21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Political Science Teaching Minor

Secondary, K-12 and Special
Education-Secondary Teacher Certification

This minor is only available to students taking the social studies or history major, for the purposes of state teacher certification. Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in political science, certification code CD. The Michigan Test for Teacher Certification (MTTC) covering this field is #10, "Political Science." Students are encouraged to take PLSC112/113 as one of their general education courses, prior to the required core courses and to complete PLSC112/113 and the required core courses within the first nine hours of political science course work.

Additional Requirements 3 hours
PLSC112/113 American Government (3 hrs)

Required Courses 6 hours

Two courses from the following:

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC211 Introduction to Comparative Government (3 hrs)
- PLSC212 Introduction to International Politics (3 hrs)
- PLSC213 Introduction to Political Thought (3 hrs)
- PLSC310 Methods of Political Research (3 hrs)

Restricted Elective Courses 15 hours

Five courses from two of the three following areas of concentration:

I. American Politics, Public Law and Administration

- PLSC202 State and Local Government (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC243 Black Women: Politics and Racism (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC301 American Legal System (3 hrs)
- PLSC305 Law and Policy in a Constitutional Democracy (3 hrs)
- PLSC312 Constitutional Law: Institutions and Process (3 hrs)
- PLSC313 Constitutional Law: Civil Rights and Liberties (3 hrs)
- PLSC314 Civil Mock Trial and Legal Process (3 hrs)
- PLSC316 Criminal Mock Trial and Legal Process (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC335 Labor in American Politics (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC357 Campaigns and Elections (3 hrs)
- PLSC358 Political Parties and Interest Groups (3 hrs)
- PLSC359 Public Opinion and Political Learning (3 hrs)
- PLSC362 Black Women: Religion and Sexism (3 hrs)
- PLSC364 Legislative Process (3 hrs)
- PLSC365 Women and Politics (3 hrs)
- PLSC380 American Presidency (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC386 US Supreme Court Simulation (3 hrs)

II. Comparative Politics and International Relations

- PLSC221 Vietnam (3 hrs)
- PLSC222 War and Peace in the Nuclear Age (3 hrs)
- PLSC308 Political Violence and Revolution (3 hrs)
- PLSC311 Politics of the Developing World (3 hrs)
- PLSC327 American Foreign Policy Process (3 hrs)
- PLSC341 International Law (3 hrs)
- PLSC342 International Organizations (3 hrs)
- PLSC343/344 Model United Nations (3 hrs)
- PLSC354 Government and Politics of Canada (3 hrs)
- PLSC361 Russian Politics in Transition (3 hrs)
- PLSC367 Latin American Politics (3 hrs)
- PLSC371 Government and Politics of the Middle East (3 hrs)

- PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)
- PLSC374 Asian Political Systems (3 hrs)
- PLSC462 Russian Foreign Relations (3 hrs)
- PLSC467 Advanced International Relations (3 hrs)

III. Political Theory

- PLSC382 Politics and the 21st Century (3 hrs)
- PLSC410 Political Science in Literature and Film (3 hrs)
- PLSC418 20th Century Political Theory (3 hrs)
- PLSC420 Democracy and Power (3 hrs)
- PLSC422 American Political Theory (3 hrs)

Minor Total24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Pre-Professional Program in Pre-Law

Most law schools require a bachelor's degree and evidence of potential for law school as measured by grade point average and the results of the Law School Admission Test (LSAT). In addition, most law school admission officers emphasize the importance of a broad academic background and the development of analytical and communication skills. The Department of Political Science provides counseling for prelaw students, LSAT registration and application materials and catalogs from many law schools throughout the country.

Because law schools typically do not require specific courses for admission or identify any particular major or curriculum as preferable, it is necessary for prelaw students to plan their own academic programs. Given the increasing competitiveness of admission to law school, it is important that great care be exercised in selecting a program of study appropriate to a legal career and in maintaining a high level of academic performance. It is also prudent to choose a program that will provide a suitable alternative career.

The majors most commonly selected by prelaw students are political science, economics, history and sociology. Other frequent choices include English language and literature, communications, psychology, philosophy and business administration. Although less numerous, students with majors in mathematics, the natural sciences, foreign languages, music and art also enter law school to enhance their career potential.

Whatever major and minor combination is chosen, attention also should be given to the selection of appropriate elective courses. Generally, any challenging course that will facilitate mastery of the use of language, develop critical understanding of human values and institutions, or contribute to the capacity for independent and creative thinking is likely to be useful. Among specific courses that are often recommended by prelaw advisers are advanced English composition, persuasive speech, logic and accounting. Mathematics and science courses are frequently cited as helpful in developing needed analytical skills.

Prelaw students who desire to gain greater insight into the law and legal procedures, and law school approaches to legal studies, may choose from a broad range of courses offered by the Departments of Political Science, Sociology, Economics, History and Philosophy and Marketing. The major and minor in public law and government, offered by the Department of Political Science, provides a firm foundation on which to build a career in law.

Combined Bachelor's Degree in Political Science or Public Administration and Master's of Public Administration Degree

The Combined Bachelor's Degree in Political Science (PLPA) or Public Administration (PAPA) and Master's of Public Administration Degree is an accelerated five year program in which exceptional students will earn both

undergraduate and graduate degrees. Students will spend their first three years engaged in undergraduate studies and their final two completing the graduate program. The total number of credits needed for the program will be 150. At the undergraduate level, students will complete their General Education requirements, a minor and an abbreviated version of the undergraduate Public Administration or Political Science major. Starting their fourth year, students will complete all 40-46 hours of M.P.A. program, and a portion of the credits will double count toward the undergraduate BS degree.

The curriculum requires two internships, one as part of the undergraduate major, the second in the M.P.A. portion. Thus, students will have substantial field experience in public administration upon completing the full B.S./M.P.A. degrees.

Admission

Students will be invited to apply to the Combined Degree Program by Feb. 1 of their junior year, and will be offered admission by March 1 or their junior year. Applications will require letters of recommendation, a personal statement focusing on career goals and reasons for applying to the program, and an interview with the MPA Director (or his/her designate). A minimum 3.3 grade-point average will be required for entry to this program.

Combined Bachelor's Degree in Political Science and Master's of Public Administration Degree

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours

PLSC112/113 American Government (3 hrs)

Undergraduate Requirements.....30 hours

Required Core Courses 9 hours

PLSC210 Introduction to Political Analysis (3 hrs)

PLSC270 Public Administration (3 hrs)

PLSC480 Field Seminar in Political Science/Public Administration (3 hrs)

Restricted Electives.....6 hours

Two courses from the following:

PLSC211 Introduction to Comparative Government (3 hrs)

PLSC212 Introduction to International Politics (3 hrs)

PLSC213 Introduction to Political Thought (3 hrs)

Distribution Requirements.....9 hours

Three courses from the groups listed below, including at least one course from each group:

I. Comparative Politics and International Relations

PLSC221 Vietnam (3 hrs)

PLSC222 War and Peace in the Nuclear Age (3 hrs)

PLSC308 Political Violence and Revolution (3 hrs)

PLSC311 Politics of the Developing World (3 hrs)

PLSC327 American Foreign Policy Process (3 hrs)

PLSC341 International Law (3 hrs)

PLSC342 International Organizations (3 hrs)

PLSC343/344 Model United Nations (3 hrs)

PLSC354 Government and Politics of Canada (3 hrs)

PLSC361 Russian Politics in Transition (3 hrs)

PLSC367 Latin American Politics (3 hrs)

PLSC371 Government and Politics of the Middle East (3 hrs)

PLSC372 Government and Politics of Sub-Saharan Africa (3 hrs)

PLSC374 Asian Political Systems (3 hrs)

PLSC462 Russian Foreign Relations (3 hrs)

PLSC467 Advanced International Relations (3 hrs)

II Political Theory and Methods

PLSC382 Politics and the 21st Century (3 hrs)

PLSC410 Political Science in Fiction (3 hrs)

PLSC418 20th-Century Political Theory (3 hrs)

PLSC420 Democracy and Power (3 hrs)
PLSC422 American Political Theory (3 hrs)

Graduate Courses Toward Undergraduate Major	6 hours
Minor Requirements	20 hours
University Elective Courses	23 hours
Graduate Courses Toward MPA Only	34-40 hours
Program Total	150 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Combined Bachelor's Degree in Public Administration and Master's of Public Administration Degree

General Education Requirements..... 40 hrs
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hrs
PLSC112/113 American Government (3 hrs)

Undergraduate Requirements..... 30 hours
Required Core Courses 9 hours

- PLSC210 Introduction to Political Analysis (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC480 Field Seminar in Political Science/Public Administration (3 hrs)

Restricted Electives..... 15 hours
Five courses from the following:

- PLSC202 State and Local Government (3 hrs)
- PLSC216 Municipal Government (3 hrs)
- PLSC301 The American Legal System (3 hrs)
- PLSC330 Urban Politics (3 hrs)
- PLSC332 Intergovernmental Relations and Federalism (3 hrs)
- PLSC334 Personnel Administration in Government (3 hrs)
- PLSC352 Politics of Government Budgeting (3 hrs)
- PLSC364 The Legislative Process (3 hrs)
- PLSC380 The American Presidency (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC431 Theories of Public Organization (3 hrs)

Graduate Courses Toward Undergraduate Major	6 hours
Minor Requirements	20 hours
University Elective Courses	23 hours
Graduate Courses Toward MPA Only	34-40 hours
Program Total	150 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Department of Psychology

Address: 537 Mark Jefferson
Phone: 734.487.1155 734.487.0047
E-mail: jknapp@emich.edu
Web site: www.emich.edu/psychology

See page 352 for course descriptions.

Psychology, as a discipline, is concerned with the experience, behavior, needs, desires and potential of human beings. It is basic to self development, and to career fields and life pursuits that involve other human beings.

Objectives of the department are to provide a general and in-depth survey of the fields of the science of psychology for students interested in diversified career fields; to prepare undergraduate students to pursue graduate studies in order to enter one of the several professional career areas for which the major is required: clinical psychology, industrial psychology, school psychology, teaching and research in psychology, for example; and to help students who are interested in self-development obtain current and sound approaches to problems of topical interest.

Graduate study leads to a master's degree in psychology with programs in general psychology, clinical psychology clinical behavioral psychology and to the Ph.D. in clinical psychology. These programs are described in the graduate catalog.

Psychology Major

The major in psychology is designed to provide a general and in-depth survey of the fields in the science of psychology and to prepare students to work with people in several career areas. Further study beyond the baccalaureate is required to enter professional career work.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 30-31 hours
Required Courses 13-14 hours

- PSY101/102 General Psychology (3-4 hrs)
- PSY205 Quantitative Methods in Psychology (3 hrs)
- PSY301 Introductory Experimental Psychology (4 hrs)
- PSY453 History and Systems of Psychology (3 hrs)

Restricted Elective Courses 12 hours
Select one course from each of the following areas:

- I. Adjustment and personality
 - PSY360 Abnormal Psychology (3 hrs)
 - PSY451 Dynamics of Personality (3 hrs)
- II. Biological
 - PSY357 Sensation and Perception (3 hrs)
 - PSY457 Physiological Psychology (3 hrs)
 - PSY458 Comparative Animal Behavior (3 hrs)
- III. Learning and motivation
 - PSY304 Learning (3 hrs)
 - PSY356 Motivation and Emotion (3 hrs)
- IV. Developmental and social
 - PSY309 Social Psychology (3 hrs)
 - PSY321 Child Psychology (3 hrs)

Psychology Elective Courses..... 5 hours

Minor Requirements	20 hours
University Elective Courses	33-34 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Psychology Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in psychology, certification code CE. Depending on the minor selected, these areas may be obtained. The Michigan Test for Teacher Certification (MTTC) covering this field is #11, "Psychology."

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30-31 hours

Required Courses13-14 hours

- PSY101/102 General Psychology (3-4 hrs)
- PSY205 Quantitative Methods in Psychology (3 hrs)
- PSY301 Introductory Experimental Psychology (4 hrs)
- PSY453 History and Systems of Psychology (3 hrs)

Restricted Elective Courses12 hours

Adjustment and personality

One course from the following:

- PSY360 Abnormal Psychology (3 hrs)
- PSY451 Dynamics of Personality (3 hrs)

Biological

One course from the following:

- PSY357 Sensation and Perception (3 hrs)
- PSY457 Physiological Psychology (3 hrs)
- PSY458 Comparative Animal Behavior (3 hrs)

Learning and motivation

One course from the following:

- PSY304 Learning (3 hrs)
- PSY356 Motivation and Emotion (3 hrs)

Developmental and social

One course from the following:

- PSY309 Social Psychology (3 hrs)
- PSY321 Child Psychology (3 hrs)

Psychology Elective Courses..... 5 hours

Minor Requirements20-24 hours

Select a minor from the approved list of minors for secondary, K-12 and special education — secondary programs. A minor in a high demand teaching area is advisable.

Professional Studies39 hours

Pre-Admission Phase: The Learner

and the Community..... 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment

and the Social Context.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

Literacy and Technology 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- HIST481 The Teaching of Social Studies (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC492 Student Teaching (12 hrs)

Program Total.....129-134 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Psychology Minor

The minor provides students entering many career fields a fuller scientific understanding of human experience, behavior, needs, desires and potentialities. The minor is flexible; within limits it may be designed to meet the needs of each student.

Required Courses 3-4 hours

- PSY101/102 General Psychology (3/4 hrs)

Elective Courses 16-17 hours

Sixteen to seventeen hours selected in consultation with an advising coordinator.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Psychology Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification (not available to social studies group majors)

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in psychology, certification code CE. The Michigan Test for Teacher Certification (MTTC) covering this field is #11, "Psychology."

Required Courses 3-4 hours

- PSY101/102 General Psychology (3/4 hrs)

Elective Courses 16-17 hours

Sixteen to seventeen hours selected in consultation with an advising coordinator.

Minor Total20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Sociology, Anthropology and Criminology

Address: 712-A Pray Harrold
 Phone: 734.487.0012
 E-mail: jay.weinstein@emich.edu
 Web site: www.sac.emich.edu

See pages 251, 275 and 357 for course descriptions.

The department offers majors and minors in the disciplines of sociology, anthropology and criminology and criminal justice, and participates in the

social work curriculum, the major in area studies and programs in gerontology, bilingual-bicultural education and women's studies.

Advising is available for particular areas of study. Students majoring in one of the department's programs are encouraged to see the undergraduate advising coordinator to be assigned an adviser as soon as they make their selection. Students not majoring in the department's programs may seek information about the curricula from any faculty member during their "on call" advising hours.

Graduate study leads to the master's degree in sociology or criminology and criminal justice. The M.A. degree is described in the graduate catalog.

The Department of Sociology, Anthropology and Criminology has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

**B.A./B.S. Criminology and Criminal Justice—Washtenaw
Community College**

See page 11 for further information

Anthropology Major

The program in anthropology advances the goals of humanistic education, prepares students for successfully operating in a multicultural society and provides majors with a foundation for graduate study. Anthropology is the comparative study of human behavior, both in terms of its development and in terms of its culture-specific expressions. Eastern's program in anthropology gives particular attention to the sociocultural subfield.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours

Required Courses12 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ANTH140 Introduction to Physical Anthropology (3 hrs)
- ANTH150 Introductory Archaeology (3 hrs)
- ANTH210 History of Anthropological Theory (3 hrs)

Restricted Elective Courses12 hours

- One Culture Area Course (3 hrs) selected from this list:
 - ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 - ANTH236 Peoples and Cultures of Africa (3 hrs)
 - ANTH237 Native North American Cultures (3 hrs)
 - ANTH248 Peoples and Cultures of the Pacific (3 hrs)
 - ANTH385 Culture of Japan (3 hrs)

- One Methodology course (3 hrs) selected from this list
 - ANTH200 Writing for Anthropology (3 hrs)
 - ANTH345 Qualitative Methods (3 hrs)

- Two Culminating Courses (6 hrs) selected from this list:
 - ANTH437 Kinship and Social Structure (3 hrs)
 - ANTH439 Seminar in Anthropological Theory (3 hrs)
 - ANTH479 Special Topics (3 hrs)

Elective Courses 6 hours

Two anthropology courses, of which at least one must be at the 300- level or above.

Minor Requirements20 hours

University Elective Courses34 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Curriculum in Criminology and Criminal Justice

The criminology and criminal justice curriculum provides students with a multidisciplinary understanding of crime and justice within the framework of broader social processes. This curriculum is a three-tiered structure composed of general education, a core curriculum and selected concentrations. The typical student will move from general education to the core of the program and then into one of four specialized concentrations, where he or she will be introduced to courses on the principles and application of the chosen specialty.

The curriculum for general education includes introductory courses in the fundamental social science disciplines of sociology and psychology. The core of the curriculum consists of a number of related courses that will build a foundation of social science education emphasizing analytical and conceptual skills. The pivotal course is CRM301 Criminology, a multidisciplinary perspective on the nature, extent and causes of crime. CRM300 Criminal Justice and CRM301 Criminology should be the first core courses taken by the typical student. The third and final tier of the curriculum consists of 21 hours in one of four concentrations. These concentrations contain some courses without criminological content that provide students with professionally relevant occupational knowledge and skills.

Students completing the curriculum will have satisfied all major and minor requirements for graduation. No additional minor is required.

An active articulation agreement exists between this program and the Washtenaw Community College.

See page 11 for further information

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 3 hours
One course from the following:
PHIL120 Introduction to Critical Reasoning (3 hrs)
PHIL130 Introduction to Logic (3 hrs)

Major Requirements.....69-70 hours

Core Requirements..... 12-13 hours

- PLSC112/113 American Government (3 hrs)
- PSY101/102 General Psychology (3-4 hrs)
- SOCL105 Introductory Sociology (3 hrs)
- SOCL202 Social Problems (3 hrs)

Criminology and Criminal Justice Courses.....24 hours

- CRM300 Criminal Justice (3 hrs)
- CRM301 Criminology (3 hrs)
- CRM331 Introduction to Corrections (3 hrs)
- CRM354 Juvenile Delinquency (3 hrs)
- CRM370 White Collar Crime (3 hrs)
- CRM431 Policing in Society (3 hrs)
- CRM447 Senior Seminar in Criminology (3 hrs)

- One course from the following:*
 - CRM333/SOCL333 Violence and Society (3 hrs)
 - CRM337/SOCL337 Deviance and Society (3 hrs)

Research Methods 6 hours
‡SOCL250 Quantitative Applications in Sociology (3 hrs)
‡SOCL304 Methods in Sociological Research (3 hrs)

Sociology/Anthropology Courses..... 12 hours
ANTH135 Introduction to Cultural Anthropology (3 hrs)
ANTH214 U.S. Racial and Cultural Minorities (3 hrs)
SOCL308 Social Psychology (3 hrs)
SOCL462 Complex Organizations (3 hrs)

Concentration Requirements.....15 hours
Select one of the following four concentrations:

- I. Legal Studies (CRM LGST)
 - CRM412 Law and Society (3 hrs)
 - CRM460 Criminal Law II (3 hrs)

Nine hours from the following:

- AAS441 Law in the African American Experience (3 hrs)
- CRM321 Cooperation and Conflict in Society (3 hrs)
- CRM488/489 Field Internship in Criminology and Criminal Justice (3 hrs)
- CTAC357 Interviewing as Communication (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- LAW295 Legal Research (3 hrs)
- PHIL120 Introduction to Critical Reasoning (3 hrs)
- PHIL130 Introduction to Logic (3 hrs)
- PHIL355 Philosophy of Law (3 hrs)
- PLSC301 The American Legal System (3 hrs)
- PLSC364 The Legislative Process (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC456 Criminal Law I (3 hrs)
- CRM277/278/279 Special Topics (1/2/3 hrs)
- CRM377/378/379 Special Topics (1/2/3 hrs)

II. Law Enforcement (CRM LAWE)

One course from the following:

- CRM432 Police Organization (3 hrs)
- PLSC450 Managing Public Safety Agencies (3 hrs)

Nine hours from the following:

- CRM320 Criminal Investigation (3 hrs)
- CRM321 Cooperation and Conflict in Society (3 hrs)
- CRM460 Criminal Law II (3 hrs)
- CRM488/489 Field Internship in Criminology and Criminal Justice (3-6 hrs)

One course from the following:

- HLED390 Drug Use and Abuse (3 hrs)
- SWRK431 Substance Abuse (3 hrs)

- CRM277/278/279 Special Topics (1/2/3 hrs)
- CRM377/378/379 Special Topics (1/2/3 hrs)
- PLSC301 The American Legal System (3 hrs)
- PLSC308 Political Violence and Revolution (3 hrs)
- PLSC385 Judicial Process and Behavior (3 hrs)
- PLSC456 Criminal Law I (3 hrs)
- PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
- PSY360 Abnormal Psychology (3 hrs)
- SOCL306 The Urban Community (3 hrs)
- SOCL448 Collective Behavior (3 hrs)
- SWRK120 Introduction to Social Work Services and Professional Roles (3 hrs)

III. Corrections (CRM CORR)

- CRM321 Cooperation and Conflict in Society (3 hrs)
- CRM332 Community Corrections (3 hrs)

Nine hours from the following:

- COUN450 An Introduction: Counseling Concepts and Skills (3 hrs)
- CRM277/278/279 Special Topics (1/2/3 hrs)
- CRM377/378/379 Special Topics (1/2/3 hrs)
- CRM488/489 Field Internship in Criminology and Criminal Justice (3-6 hrs)
- CTAC357 Interviewing as Communication (3 hrs)
- HLED390 Drug Use and Abuse (3 hrs) or SWRK431 Substance Abuse (3 hrs)
- PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
- PSY360 Abnormal Psychology (3 hrs)
- PSY365 Behavior Modification (3 hrs)
- SOCL402 Group Dynamics (3 hrs)
- SWRK120 Introduction to Social Work Services and Professional Roles (3 hrs)

IV. Criminal Justice Administration (CRM ADM)

- CRM332 Community Corrections (3 hrs)

One course from the following:

- CRM432 Police Organization (3 hrs)
- PLSC450 Managing Public Safety Agencies (3 hrs)

Nine hours from the following:

- ANTH345/SOCL345 Qualitative Methods (3 hrs)
- CRM277/278/279 Special Topics (1/2/3 hrs)
- CRM320 Criminal Investigation (3 hrs)
- CRM420 Drugs, Crime and Criminal Justice (3 hrs)
- CRM377/378/379 Special Topics (1/2/3 hrs)
- CRM488/489 Field Internship in Criminology and Criminal Justice (3-6 hrs)
- CTAC357 Interviewing as Communication (3 hrs)
- LAW403 Employment Law (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- PLSC270 Public Administration (3 hrs)
- PLSC334 Personnel Administration in Government (3 hrs)
- PLSC381 Public Policy Analysis (3 hrs)
- PLSC456 Criminal Law I (3 hrs)
- PSY301 Introductory Experimental Psychology (3 hrs)
- PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
- SOCL307 Sociology of the Workplace (3 hrs)
- SOCL321/CRM321 Cooperation and Conflict in Society (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 11-12 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†SOCL341 and SOCL342 Quantitative Methods of Social Research I and II may be substituted for SOCL250 and SOCL304.

Sociology Major

This major includes the study of social class, community and family, and educational, religious, governmental and economic institutions in complex industrial societies. Flexibility in both the major and minor allows students interested in careers in fields such as business, nursing, technology, communications, psychology, home economics, law or the helping professions to select courses meeting their special needs.

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....33 hours
Required Courses18 hours

- SOCL105 Introductory Sociology (3 hrs)
- SOCL250 Quantitative Applications in Sociology (3 hrs)
- SOCL304 Methods in Sociological Research (3 hrs)
- SOCL308 Social Psychology (3 hrs)
- SOCL403 Modern Sociological Theory (3 hrs)
- SOCL405 Senior Seminar in Sociology (3 hrs)

One option from the following:

Option I: General Sociology15 hours
Required Courses 3 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)

Restricted Elective Courses 6 hours

Two courses from the following:

- SOCL307 Sociology of the Workplace (3 hrs)
- SOCL310 Social Stratification (3 hrs)
- SOCL311 Social Gerontology (3 hrs)
- SOCL312 Medical Sociology (3 hrs)
- SOCL336/ANTH336 Social and Cultural Change (3 hrs)

Elective Courses 6 hours

Choose from courses in sociology, anthropology, criminology. Must be at the 300-level or above.

Option II: Applied Sociology.....15 hours

Required Courses 9 hours

- SOCL230 Introduction to Applied Sociology (3 hrs)
- SOCL310 Social Stratification (3 hrs)
- SOCL489 Internship in Sociology (3 hrs)

Restricted Electives 6 hours

Students must take two courses from one of the following four areas:

Family/Health/Aging Concentration

- SOCL303 Sociology of Childhood and Youth (3 hrs)
- SOCL311 Social Gerontology (3 hrs)
- SOCL312 Medical Sociology (3 hrs)
- SOCL450 The Family (3 hrs)

Public/Private Sector Concentration

- SOCL306 The Urban Community (3 hrs)
- SOCL307 Sociology of the Workplace (3 hrs)
- SOCL321 Cooperation and Conflict in Society (3 hrs)
- SOCL334 Population (3 hrs)
- SOCL462 Complex Organizations (3 hrs)

Deviance Concentration

- CRM301 Criminology (3 hrs)
- CRM337 Deviance and Society (3 hrs)
- CRM354 Juvenile Delinquency (3 hrs)
- CRM370 White Collar Crime (3 hrs)
- CRM412 Law and Society (3 hrs)
- SOCL333 Violence and Society (3 hrs)

Media/Technology Concentration

- CMT425 Communication Technology and Social Change (3 hrs)
- SOCL260 Media and Violence (3 hrs)
- SOCL440 Sociology and Technology (3 hrs)
- STS495 Technology, Values and the Future (3 hrs)

Minor Requirements20 hours

University Elective Courses31 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Sociology Major

Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in sociology, certification code CF. The Michigan Test for Teacher Certification (MTTC) covering this field is #12, "Sociology."

General Education Requirements.....40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 6 hours

- HIST102 Western Civilization, 1648 to World War I (3 hrs)
- HIST103 20th-Century Civilization (3 hrs)

Major Requirements.....30 hours

- SOCL105 Introductory Sociology (3 hrs)
- SOCL202 Social Problems (3 hrs)
- SOCL250 Quantitative Applications in Sociology (3 hrs)
- SOCL304 Methods in Sociological Research (3 hrs)
- SOCL308 Social Psychology (3 hrs)
- SOCL310 Social Stratification (3 hrs)
- SOCL403 Modern Sociological Theory (3 hrs)
- SOCL405 Senior Seminar in Sociology (3 hrs)

One course from the following:

- SOCL306 The Urban Community (3 hrs)
- SOCL307 Sociology of the Workplace (3 hrs)
- SOCL309/ANTH309 Culture and Personality (3 hrs)
- SOCL311 Social Gerontology (3 hrs)
- SOCL312 Medical Sociology (3 hrs)
- SOCL336 Social & Cultural Change (3 hrs)
- SOCL450 The Family (3 hrs)
- SOCL462 Complex Organizations (3 hrs)

One additional 300- or 400-level Sociology course (3 hrs)

Minor Requirements 20-26 hours

Select a minor from the approved list of minors for secondary, K-12 and special education — secondary programs.

Professional Studies39 hours

Pre-admission phase: The Learner and the Community..... 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Curriculum, Assessment and the Social Context:.....10 hours

- CURR305 Curriculum and Methods: Secondary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE302 Field Experience II: Secondary (1 hr)
- SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology:..... 9 hours

- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- FETE402 Field Experience III: Secondary (1 hr)
- HIST481 The Teaching of Social Studies (3 hrs)
- RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience12 hours

- EDUC492 Student Teaching (12 hrs)

Program Total 135-141 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Anthropology Minor

Required Courses 12 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ANTH140 Introduction to Physical Anthropology (3 hrs)
- ANTH150 Introductory Archeology (3 hrs)
- ANTH210 History of Anthropological Theory (3 hrs)

Elective Courses 8 hours

- One 200-level culture-area course from the following:
- ANTH233 Cultures of Mesoamerica and the Caribbean (3 hrs)
 - ANTH236 Peoples and Cultures of Africa (3 hrs)
 - ANTH237 Native North American Cultures (3 hrs)
 - ANTH248 Peoples and Cultures of the Pacific (3 hrs)
- One course at the 300- or 400-level (3 hrs)
Two additional hours in anthropology (2 hrs)

Minor Total 20 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Criminology/Criminal Justice Minor

Required Core Courses 9 hours

- CRM300 Criminal Justice (3 hrs)
- CRM301 Criminology (3 hrs)
- PLSC301 The American Legal System (3 hrs)

Restricted Criminology Elective Courses 6 hours

- Two courses from the following:
- CRM331 Introduction to Corrections (3 hrs)
 - CRM420 Drugs, Crime and Criminal Justice (3 hrs)
 - CRM354 Juvenile Delinquency (3 hrs)
 - CRM370 White Collar Crime (3 hrs)
 - CRM412 Law and Society (3 hrs)
 - CRM431 Policing in Society (3 hrs)
 - CRM460 Criminal Law II (3 hrs)

Restricted Social Science Elective Courses 6 hours

- Two courses from the following:
- HLED390 Drug Use and Abuse (3 hrs)
 - PHIL355 Philosophy of Law (3 hrs)
 - PLSC308 Political Violence and Revolution (3 hrs)
 - PLSC412 Comparative Legal Systems (3 hrs)
 - PLSC456 Criminal Law I (3 hrs)
 - PSY360 Abnormal Psychology (3 hrs)
 - SOCL462 Complex Organizations (3 hrs)
 - SWRK431 Substance Abuse (3 hrs)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Health and Illness Studies Interdisciplinary Minor

This minor examines the ways in which human beings deal with health and illness in different cultural settings including American society and its subcultures. Oriented toward the student interested in social and cultural aspects of health, illness and disease, it provides a theoretical perspective on comparative medical systems.

Required Courses 15 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ANTH329 Medical Anthropology (3 hrs)
- SOCL105 Introductory Sociology (3 hrs)

SOCL311 Social Gerontology (3 hrs)

SOCL312 Medical Sociology (3 hrs)

Elective Courses 6 hours

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Sociology Minor

Required Courses 14-15 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- SOCL105 Introductory Sociology (3 hrs)
- Sociology or criminology courses at the 300-level or above (8-9 hrs)

Elective Courses 6 hours

- Anthropology courses at the 300-level or above. Social work courses may not be counted toward the sociology minor.

Minor Total 20-21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Sociocultural Perspectives on the Family Interdisciplinary Minor

This minor combines the perspectives of anthropology and sociology by examining the sociocultural determinants and consequences of the family in the United States and other cultures. Students in such diverse fields as business, law, teaching, communication, nursing and technology learn how the family is integrated into the segment of society in which they intend to work. It is designed for students planning to work directly with families as social workers, family life professionals or clinical psychologists.

Required Courses 21 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- ANTH309 Culture and Personality (3 hrs)
- SOCL105 Introductory Sociology (3 hrs)
- SOCL204 Marriage and Family (3 hrs)
- SOCL303 Sociology of Childhood and Youth (3 hrs)
- SOCL344 Sociology of Gender (3 hrs)
- SOCL450 The Family (3 hrs)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Sociology Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification (not available to social studies group majors)

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in sociology, certification code CF. The Michigan Test for Teacher Certification (MTTC) covering this field is #12, "Sociology."

Required Courses 18 hours

- SOCL105 Introductory Sociology (3 hrs)
- SOCL202 Social Problems (3 hrs)
- SOCL304 Methods in Sociological Research (3 hrs)
- SOCL308 Social Psychology (3 hrs)
- SOCL310 Social Stratification (3 hrs)
- SOCL403 Modern Sociological Theory (3 hrs)

Restricted Electives.....3 hours
Choose one additional 300- or 400-level sociology course. The following courses are suggested, but any 300- or 400-level sociology course is acceptable.

- SOCL306 The Urban Community (3 hrs)
- SOCL307 Sociology of the Workplace (3 hrs)
- SOCL309 Culture and Personality (3 hrs)
- SOCL311 Social Gerontology (3 hrs)
- SOCL312 Medical Sociology (3 hrs)
- SOCL336 Social and Cultural Change (3 hrs)
- SOCL405 Senior Seminar in Sociology (3 hrs)
- SOCL450 The Family (3 hrs)
- SOCL462 Complex Organizations (3 hrs)

Minor Total21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Women's and Gender Studies

Address: 714 Pray-Harrold
Phone: 734.487.1177
Web site: www.emich.edu/wstudies/index.html

See page 372 for course descriptions.

The Women's and Gender Studies Program offers an interdisciplinary academic major and minor to provide intellectual perspective and life-enriching skills for women and men. Professors have designed technology, politics and health courses that document the contributions of women to history, literature, science, education, family and work in a cultural context. Insights into the psychology of women, the impact of women on social structures and how women influence contemporary society will be valuable to students in their personal and professional lives.

Individual courses in the Women's and Gender Studies Program can be taken as electives to enrich any major.

Women's and Gender Studies Major

General Education Requirements.....40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....30 hours
Core Courses9 hours

- WGST200 Introduction to Women's Studies (3 hrs)
- WGST226/PHIL226 Feminist Theory (3 hrs)
- WGST400 Capstone Seminar or (substitute course as approved by adviser) (3 hrs)

Restricted Elective Courses12 hours
Three hours from each of the following four groups:

- I. Arts and Humanities
 - CASI240 Reel Women/Real Women (3 hrs)
 - WGST321/CLASS321/HIST321 Women and Gender in the Ancient World (3 hrs)
 - WGST335 History of Women in Europe (3 hrs)
 - WGST336 History of Women in the United States and Great Britain, 1800 to the Present (3 hrs)
 - WGST415/HIST415 History of Sexual Communities in U.S. History (3 hrs)

- WGST426/PHIL426 Topics in Gender and Philosophy (3 hrs)
- WGST436 Women in Art (3 hrs)
- WGST443 Women in Literature (3 hrs)
- II. Social and Physical Sciences
 - WGST208/SOC208/ANTH208 Minority Women in the United States (3 hrs)
 - WGST242/PSY242 Psychology of Women (3 hrs)
 - WGST243/AAS243/PLSC243 Black Women: Politics and Racism (3 hrs)
 - WGST260/CTAC260 Gender Communication (3 hrs)
 - WGST269/ZOOL269 Biology of Sex and Gender (3 hrs)
 - WGST328/ECON328 Economics of Women (3 hrs)
 - WGST339/CRM339/SOCL339 Women, Crime and Justice (3 hrs)
 - WGST344/SOCL344 Sociology of Gender (3 hrs)
 - WGST362/AAS362/PLSC362 Black Women: Religion and Sexism (3 hrs)
 - WGST365/PLSC365 Women and Politics (3 hrs)
 - WGST420/STS420 Women and Technology (3 hrs)
- III. Multicultural and Cross-Cultural Studies
 - AAS361 The African American Family (3 hrs)
 - ANTH214/SOCL214 U.S. Racial and Cultural Minorities (3 hrs)
 - CTAC275 Interracial/Interethnic Communication (3 hrs)
 - ECON321 Minority Workers in the Labor Market (3 hrs)
 - PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
 - WGST243/AAS243/PLSC243 Black Women: Politics and Racism (3 hrs)
 - WGST355/ANTH355 Anthropology of Women (3 hrs)
 - WGST362/AAS362/PLSC362 Black Women: Religion and Sexism (3 hrs)
- IV. Practice and Policy
 - COUN450 An Introduction: Counseling Concepts and Skills (3 hrs)
 - HLED130 Healthy Sexuality (3 hrs)
 - HLED399 Teaching about AIDS (1 hr)
 - HELD460 Concepts in Sexuality Education (2 hrs)
 - LEGL313 Family Law (3 hrs)
 - PSY240 Psychology of Sex (3 hrs)
 - PSY460 Psychology of Film (3 hrs)
 - SOCL450 The Family (3 hrs)
 - WGST205/BMMT205 Women in Business (3 hrs)
 - WGST230 Conversations with Girls (4 hrs)
 - WGST387 Cooperative Education in Women's Studies (3 hrs)
 - WGST405/PHED405 Women in Sports (3 hrs)
 - WGST413/SWRK413 Women and Aging (3 hrs)
 - WGST414/LEGL414 Women and the Law (3 hrs)
 - WGST487 Cooperative Education in Women's Studies (3 hrs)

Elective Courses9 hours

Minor Requirements20 hours

University Elective Courses34 hours

Program Total124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
Special topics courses (WGST279/378/379/478/479) and independent study (WGST497/498/499) offerings may be substituted for either restricted or other electives with department permission.

Women's and Gender Studies Minor

For all of the following listed courses, note the relevant department's or program's course prerequisites. For availability of all of the following courses, check the class schedule of the term for which you register. Also, consult the Women's and Gender Studies Program Director or the undergraduate adviser for other approved women's and gender studies courses offered in the term for which you register.

Required Courses 3 hours
 WGST200 Introduction to Women's Studies (3 hrs)

Restricted Elective Courses 12 hours

Select six hours from each of the following groups:

I. Arts and Humanities

- WGST436 /ART436 Women in Art (3 hrs)
- CASI240 Reel Women/Real Women (3 hrs)
- WGST443 /LITR443 Women in Literature (3 hrs)
- WGST226 /PHIL226 Feminist Theory (3 hrs)
- WGST426/PHIL426 Topics in Gender and Philosophy (3 hrs)
- WGST321/CLASS321/HIST321 Women and Gender in the Ancient World (3 hrs)
- WGST335/HIST335 History of Women in Europe (3 hrs)
- WGST336/HIST336 History of Women in the United States and Great Britain, 1800 to the Present (3 hrs)
- WGST415/HIST415 History of Sexual Communities in U.S. History (3 hrs)

II. Social and Physical Sciences

- WGST362/AAS362/PLSC362 Black Women: Religion and Sexism (3 hrs)
- WGST355/ANTH355 Anthropology of Women (3 hrs)
- WGST328/ECON328 Economics of Women (3 hrs)
- WGST420/STS420 Women and Technology (3 hrs)
- WGST242/PSY242 Psychology of Women (3 hrs)
- WGST208/SOCL208/ANTH208 Minority Women in the United States (3 hrs)
- WGST243/AAS243/PLSC243 Black Women: Politics and Racism (3 hrs)
- WGST260/CTAC260 Gender Communication (3 hrs)
- WGST339/CRM339/SOCL339 Women, Crime and Justice (3 hrs)
- WGST344/SOCL344 Sociology of Gender (3 hrs)
- WGST365/PLSC365 Women and Politics (3 hrs)
- WGST269/ZOOL269 Biology of Sex and Gender (3 hrs)

Elective Courses 6 hours

Six hours from the following elective courses:

- AAST361 The African American Family (3 hrs)
- COUN450/GDCN450 An Introduction: Counseling Concepts and Skills (3 hrs)
- CTAC275 Interracial/Interethnic Communication (3 hrs)
- ECON321 Minority Workers in the Labor Market (3 hrs)
- HLED130 Healthy Sexuality (3 hrs)
- HLED399 Teaching about AIDS (1 hr)
- HLED460 Concepts in Sexuality Education (2 hrs)
- LEGL313 Family Law (3 hrs)
- PHED405/WGST405 Women in Sports (3 hrs)
- PSY240 Psychology of Sex (3 hrs)
- PSY340 Psychological Perspectives on Prejudice and Discrimination (3 hrs)
- PSY460 Psychology of Film (3 hrs)
- SOCL214/ANTH214 U.S. Racial and Cultural Minorities (3 hrs)
- SOCL450 The Family (3 hrs)
- SWRK413/WGST413 Women and Aging (3 hrs)
- SWRK465 Social Work, Sex and the Family (3 hrs)
- WGST205/BMMT205 Women in Business (3 hrs)
- WGST230 Conversations with Girls (4 hrs)
- WGST243/AAS242 Black Women: Politics and Racism (3 hrs)

- WGST362/AAS362/PLSC362 Black women: Religion and Sexism (3 hrs)
- WGST355/ANTH355 Anthropology of Women (3 hrs)
- WGST414/LEGL414 Women and the Law (3 hrs)
- WGST387 Cooperative Education in WGST (3 hrs)
- WGST487 Cooperative Education in WGST (3 hrs)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

College of Business

Dean

David Mielke
473 Owen Building
Phone: 734.487.4140

Associate Dean

Denise Tanguay
473 Owen Building
Phone: 734.487.4140

Assistant Dean

Amelia Chan
401 Owen Building
Phone: 734.487.2344

Assistant Dean

Dawn Gaymer
404 Owen Building
Phone: 734.487.4444

Departments and Programs

- Accounting and Finance
- Computer Information Systems
- Management
- Marketing

Mission Statement

The mission of the college is 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 environment as they create and recreate business.

The primary focus of the college is on teaching and learning, whether in the classroom or in the community. Faculty research is fundamentally applied in nature and serves to enhance teaching as well as provide new insights to the business community and other scholars. Professional service is directed towards the needs of the region and the professional communities that sustain the faculty and also serves to enhance the teaching capacity of the faculty and learning opportunities for our students. **Accreditation of all undergraduate and graduate programs is by AACSB International: The Association to Advance Collegiate Schools of Business.**

The College of Business provides affordable practical business education for the bachelor’s through the master’s level degrees to residents of southeast Michigan. By virtue of its various strengths, the College of Business also attracts students from outside the region and from the world. The college aims to design programs to meet the needs of a quickly changing business environment by having key corporate partnerships and strong advisory boards. The college has a strong faculty with interests and skills that match these needs: skills in entrepreneurship, human resources development, information/knowledge management, results measurement, change management, e-business, real estate development, corporate social responsibility, globalization, workforce diversity, supply and chain management innovation and rapid growth and diversification of the regional economy.

The bachelor of business administration degree is offered to students majoring in any one of 12 undergraduate professional programs:

- Accounting
- Accounting Information Systems
- Bachelor’s-Master’s degree in Accounting (150-hour program)
- Bachelor’s- Master’s degree in Accounting Information Systems (150 hour program)
- Computer Information Systems
- †Economics
- Entrepreneurship
- Finance
- General Business
- International Business
- Management
- Marketing
- Supply Chain Management

Note:
†Economics is offered in cooperation with the Department of Economics.

The College of Business offers four graduate programs which lead to a master’s of business administration or master of science degree in accounting, computer-based information systems and human resource management and organization development. For descriptions of graduate programs and courses in the College of Business, consult the graduate catalog.

The College of Business has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head, College of Business advising office or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.B.A. Business** — Delta Community College
- B.B.A. Business** — Henry Ford Community College
- B.B.A. Business** — Lansing Community College
- B.B.A. Business** — Monroe County Community College
- B.B.A. Business** — Oakland Community College
- B.B.A. Business** — Owens Community College
- B.B.A. Business** — Schoolcraft Community College
- B.B.A. Business** — Washtenaw Community College

Accreditation of all undergraduate and graduate programs is by AACSB International: The Association to Advance Collegiate Schools of Business.

Admission

Admission to the College of Business is open to student applicants with 56 or more hours completed who are enrolled in the last one or two of the 16 required courses to qualify for admission. Students wishing to advance register for classes should return their applications to the College of Business Undergraduate Business Advising Office by the following deadlines:

Winter semester.....	November 15
Spring and summer sessions	March 15
Fall semester	July 15

Note:
Students who do not meet the above deadline for application to the College of Business should contact the Undergraduate Business Programs Office regarding late application.

Applicants must bring to the Undergraduate Business Program Office a progress report, tabulation of transfer credits and transcripts or grade reports in order to be approved immediately for registration in 300- to 400-level business courses.

Students must be admitted to the University to be considered for admission to the College of Business. However, students admitted to the University, are not automatically admitted to the College of Business.

Business majors who wish to enroll in 300- to 400-level business courses must contact the Undergraduate Business Program Office.

To qualify for admission, students must have successfully completed 56 hours with a minimum cumulative grade point average of 2.5. In addition, the following courses (1 through 15) must be recognized as successfully completed by the University, and the business courses (9 through 14) must be completed with a minimum earned grade of C- (C required for transfer courses) in each:

1. ENGL121 Composition II: Researching the Public Experience (3 hrs)
2. CTAS124 Fundamentals of Speech (3 hrs)
3. An English, foreign language or communication elective
4. MGMT202 Business Communication (3 hrs)
5. MATH118 Linear Models and Probability (3 hrs)
6. ECON201 Principles of Macroeconomics (3 hrs) and ECON202 Principles of Microeconomics (3 hrs)
7. PLSC112/113 American Government (3/3 hrs)
8. Philosophy or religion (logic or ethics strongly recommended)
9. PSY101/102 General Psychology (3/4 hrs)
10. COB200 Introduction to Business (3 hrs)
11. ACC240 Principles of Financial Accounting (3 hrs) and ACC241 Principles of Managerial Accounting (3 hrs)
12. LAW293 Legal Environment of Business (3 hrs)
13. IS215 End-User Computing (3 hrs)
14. MGMT202 Business Communication (3 hrs)
15. DS265 Business Statistics I (3 hrs)

Business students may not enroll in 300- to 400-level business courses prior to completing admission requirements.

Priority Admission to the College of Business Freshman

Freshmen who are high school National Merit Scholars or Eastern Michigan University Presidential scholars, as determined by the scale below, may gain priority admission to the College of Business as a freshman.

The determination of an EMU Presidential Scholar is indicated on the scale below:

GPA	ACT	SAT
4.0	20	940-979
3.9	21	980-1019
3.8	22	1020-1059

3.7	23	1060-1089
3.6	24	1090-1129
3.5	25	1130-1169
3.4	26	1170-1209
3.3	27	1210 and up

Transfer Student

Students transferring from a community college or a four-year institution who have completed at least 30 transferable credit hours with course(s) in a business track may also gain priority admission to the College of Business. Those students who have earned a 3.0 or higher GPA will be admitted to the College of Business without a conditional admission.

To maintain priority admit status in the College of Business:

- Students must maintain a minimum of 2.5 cumulative GPA at Eastern Michigan University.
- Priority admit students will be eligible to enroll in 300-400 level business courses after completing a total of 56 credit hours (junior status) and meeting prerequisite requirements.

Prospective transfer students are strongly recommended to contact the Undergraduate Business Advising Office for a review and evaluation of transfer credits individually and unofficially. Students may also contact the Transfer Center in 301 Pierce Hall, 734.487.1442. Prospective transfer students need to present unofficial transcripts/records for advising. Once an applicant is accepted as a transfer student at Eastern Michigan University, an official tabulation of credit will be provided to the student during the initial advising appointment at Academic Advising in 301 Pierce Hall. Business-intent students will be advised in the College of Business Undergraduate Advising Office after the initial advising appointment at Academic Advising. Transfer business students are required to formally apply for admission to the College of Business and must meet all college admission requirements. Priority admission students do not need to apply for admission to the College of Business.

Nonbusiness majors

Nonbusiness majors need not apply for admission to the College of Business but must contact the Undergraduate Business Advising Office. Students will be asked to provide academic records and to complete a student intake sheet to confirm their program of study and preparation. Students must be of junior standing (56 or more hours) and in good academic standing (2.0 GPA or better) to enroll in 300- and 400-level College of Business courses. No student majoring in a program outside of the College of Business may be given more than 30 hours of credit for courses offered in EMU's College of Business. This limitation applies to those minoring in business as well as to those taking business courses for general elective credit. Nonbusiness majors also must satisfy stated course prerequisites listed in this catalog.

Curriculum for the Bachelor of Business Administration Degree

The bachelor of business administration degree requires that students successfully complete a minimum of 60 hours in business within the minimum 124 hours required to qualify for a B.B.A. degree. No more than 50 percent of the 124 hours may be completed in the business courses.

In the program of study outlined below, the number of general education hours in symbolics and communication, mathematics, science and technology, social science and arts and humanities is indicated. Students must take the specified courses as shown. In some cases, courses taken to meet General Education Requirements also may satisfy specific program requirements, as in the case of economics, mathematics and computer literacy. (Please refer to EMU General Education Graduate Requirements on pages 46-47.)

Students must meet requirements for admission to the College of Business before enrolling in upper-division (300- or 400-level) business courses.

The curriculum described meets the major and minor requirements for graduation. No additional minor is needed.

The business core and major requirements in effect at the time of the student's initial registration at Eastern Michigan University (see the EMU seven-year rule on page 26), or the requirements of a subsequent catalog, including those in effect at the time of the student's graduation, may be used to complete graduation requirements.

Active articulation agreements exist between this program and the following schools:

- B.B.A. Business** — Delta Community College
- B.B.A. Business** — Henry Ford Community College
- B.B.A. Business** — Lansing Community College
- B.B.A. Business** — Monroe County Community College
- B.B.A. Business** — Oakland Community College
- B.B.A. Business** — Owens Community College
- B.B.A. Business** — Schoolcraft Community College
- B.B.A. Business** — Washtenaw Community College

See page 11 for further details.

Graduation Requirements for Bachelor of Business Administration

Academic standards require that students maintain a 2.0 GPA. Students who fail to achieve this cumulative 2.0 GPA will be considered to be on probation by the University. A cumulative GPA below 2.0 for consecutive semesters will result in dismissal from the University. Please refer to the section under "Academic Probation and Dismissal" in this catalog.

To qualify for graduation, students must maintain a GPA of 2.0 in the business administration core and 2.0 in their major as well as maintaining a 2.0 overall EMU GPA.

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Additional Requirements	9 hours
ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
<i>One course from the following:</i>	
MATH118 Linear Models and Probability (3 hrs)	
MATH122 Elementary Linear Algebra (3 hrs)	
Major Requirements	60-69 hours
Business Core	36 hours
ACC240 Principles of Financial Accounting (3 hrs)	
ACC241 Principles of Managerial Accounting (3 hrs)	
COB200 Introduction to Business (3 hrs)	
DS265 Business Statistics I (3 hrs)	
FIN350 Principles of Finance (3 hrs)	
IS215 End-User Computing (3 hrs)	
LAW293 Legal Environment of Business (3 hrs)	
MGMT202 Business Communication (3 hrs)	
MGMT386 Organizational Behavior and Theory (3 hrs)	
†MGMT490 Business Policy (3 hrs)	
MKTG360 Principles of Marketing (3 hrs)	
POM374 Introduction to Production/Operations Management (3 hrs)	
Discipline	24-33 hours
<i>Select one from the following:</i>	
Accounting (24 hrs)	
Accounting Information Systems (33 hrs)	
Computer Information Systems (30 hrs)	
Economics (30 hrs)	
Entrepreneurship (24 hrs)	
Finance (24 hrs)	
General Business (24 hrs)	
Management (24 hrs)	
Marketing (24 hrs)	

Minor Requirement.....	0 hours
<i>No minor is required.</i>	
University Elective Courses.....	6-15 hours
Program Total.....	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.
‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Department of Accounting and Finance

Address: 406 Gary M. Owen Building
Phone: 734.487.3320
E-mail: susan.kattelus@emich.edu
Web site: www.acffin.emich.edu

See pages 250, 285, and 296 for course descriptions.

The Department of Accounting and Finance prepares students for professional careers related to the fields of accounting, accounting information systems and finance. Within each of these major areas, students can develop their expertise in a variety of areas including financial accounting, managerial accounting, accounting information systems, auditing, taxation, governmental and nonprofit, finance and banking. All programs of study and advising materials are available at www.acffin.emich.edu

Accounting Major

Students majoring in accounting develop competencies necessary for professional careers in:

Public Accounting, which leads to a career as a Certified Public Accountant (CPA). Public accounting firms provide a variety of professional services to their clients, such as audit, tax management, advisory and personal financial planning.

Controllership and Financial Management in Industry, which may lead to careers as Certified Management Accountants (CMA). Managerial accountants perform tasks within a business, such as strategic cost management, performance measurement, budget analysis and internal and operational auditing. The strategic managerial accountant generates and interprets operating and financial data that help management make decisions.

Internal Auditing, which may lead to careers as Certified Internal Auditors (CIA). Internal auditors are engaged within large corporations to provide independent objective assurance and consulting activities designed to add value and improve an organization's operations.

Public and Nonprofit Sector Accounting, which may lead to careers as Certified Government Financial Managers (CGFM). Government accountants work in federal, state and local governmental entities to provide information and accountability to taxpayers and other resource providers. Accountants in nonprofit organizations provide similar information to donors, grantors and other resource providers.

Through an optional internship program, students with good academic records have an opportunity to work in public accounting or industry. These paid (at market wages) internships provide education, exposure to professionals and opportunities to network.

Upon graduation, accounting majors who plan to become Certified Public Accountants (CPA), Certified Management Accountants (CMA) or Certified Internal Auditors (CIA) will qualify to sit for national certification examinations. In Michigan, CPA candidates will qualify to sit for the exam upon graduation, but they will need 150 hours of education for licensure. However, many states require CPA candidates to have earned 150 hours of credit, or possibly a master's degree, before sitting for the exam. Be sure you know the requirements for your state.

The general requirements for the bachelor of business administration degree, the academic major requirements below and sufficient electives to meet the minimum of 124 hours for graduation, must be completed.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
One course from the following:
MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements..... 60 hours
Business Core Courses..... 36 hours
ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
‡MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Discipline..... 24 hours
Required Courses 18 hours
ACC296 The Accounting Cycle and Profession (3 hrs)
ACC340 Intermediate Accounting (3 hrs)
ACC342 Managerial Cost Accounting (3 hrs)
ACC344 Principles of Taxation (3 hrs)
ACC356 Accounting Information Systems (3 hrs)
ACC496 Financial Management and Controllership (3 hrs)
Restricted Elective Courses 6 hours
Two courses from the following:
ACC442 Advanced Cost Accounting (3 hrs)
ACC450 Internal Auditing (3 hrs)
ACC475 International Accounting (3 hrs)
ACC479 Special Topics (3 hrs)
ACC491 Accounting Honors Thesis (3 hrs)
ACC499 Directed Studies (3 hrs)
ACC510 Enterprise Systems (3 hrs)
ACC511 Accounting for E-Commerce (3 hrs)
ACC560 Fraud Examination (3 hrs)
ACC584 Tax Research Methods, Practice and Problems (3 hrs)
ACC540 Corporate Financial Reporting (3 hrs)
ACC541 Advanced Financial Accounting (3 hrs)
‡ACC546 Public and Nonprofit Sector Accounting (3 hrs)
ACC548 Information Systems Audit and Control (3 hrs)
ACC567 Professional Auditing (3 hrs)
ACC585 Business Tax Planning (3 hrs)

Minor Requirements	0 hours
<i>No minor is required.</i>	
University Elective Courses	15 hours
Program Total	124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

†Students who intend to sit for the CPA examination in Michigan must elect ACC546 Public and Nonprofit Sector Accounting and should consider the MSA graduate program as ACC540, AC546 and ACC567 should be taken at a minimum, in order to sit for the CPA exam.

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Accounting Information Systems Major

Accounting information systems is a four-year program designed to provide a bachelor's degree with a concentration in accounting and computer information systems. The program combines the course work required for a degree in accounting with several computer information systems courses.

Eastern Michigan University is one of only a few universities in the country offering this unique degree. Accounting information systems majors who obtain this degree are well prepared for careers in a dynamic and ever-changing environment, where knowledge of both accounting and computer information systems is mandatory. Possible career choices include computer systems design, computer assurance services, computer security analysis, internal auditing, public accounting, nonprofit accounting and strategic managerial accounting.

Upon graduation, accounting information systems majors who plan to become certified public accountants, certified management accountants, certified internal auditors or certified information systems auditors will qualify to sit for national certification examinations. In Michigan, CPA candidates will qualify to sit for the exam upon graduation, but they will need 150 hours of education for licensure in Michigan. However, many states require CPA candidates to have earned 150 hours of credit, or possibly a master's degree, before sitting for the exam. Be sure you know the requirements for your state.

The general requirements for the bachelor of business administration degree, the academic major requirements below and sufficient electives to meet the minimum of 124 hours for graduation, must be completed.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

Additional Requirements	9 hours
ECON201 Principles of Macroeconomics (3 hrs)	
ECON202 Principles of Microeconomics (3 hrs)	
<i>One course from the following:</i>	
MATH118 Linear Models and Probability (3 hrs)	
MATH122 Elementary Linear Algebra (3 hrs)	

Major Requirements.....	69 hours
Business Core Courses..... 36 hours	
ACC240 Principles of Financial Accounting (3 hrs)	
ACC241 Principles of Managerial Accounting (3 hrs)	
COB200 Introduction to Business (3 hrs)	
DS265 Business Statistics I (3 hrs)	
FIN350 Principles of Finance (3 hrs)	
IS215 End-User Computing (3 hrs)	
LAW293 Legal Environment of Business (3 hrs)	
MGMT202 Business Communication (3 hrs)	
MGMT386 Organizational Behavior and Theory (3 hrs)	
‡MGMT490 Business Policy (3 hrs)	

MKTG360 Principles of Marketing (3 hrs)	
POM374 Introduction to Production/Operations Management (3 hrs)	
Discipline.....	33 hours
ACC296 The Accounting Cycle and Profession (3 hrs)	
ACC340 Intermediate Accounting (3 hrs)	
ACC342 Managerial Cost Accounting (3 hrs)	
ACC344 Principles of Taxation (3 hrs)	
ACC356 Accounting Information Systems (3 hrs)	
ACC456 Accounting Information Systems Implementation and Projects (3 hrs)	
ACC548 Information Systems Audit and Control (3 hrs)	
IS247 Introduction to Web Application Development (3 hrs)	
IS315 Object-Oriented Application Development (3 hrs)	
IS320 Business Data Communications and Computer Networks (3 hrs)	
IS380 Introduction to Databases (3 hrs)	

Minor Requirements	0 hours
<i>No minor is required.</i>	

University Elective Courses	6 hours
Program Total	124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Bachelor's-Master's Degree in Accounting

Accounting Information Systems Accounting

This combined degree program prepares students for careers in public accounting, industry and governmental and nonprofit entities. CPA candidates must have completed 150 hours of education before being admitted as members of the American Institute of Certified Public Accountants and to be licensed in most states.

Admission Requirements

Following are the minimal standards for admission to 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. a cumulative G.P.A. of 3.0 and a 4.0 scale.
4. completed application and payment of fee to the Graduate School.

The candidate should apply to the graduate program at the beginning of his/her senior year and take the Graduate Management Admission Test (GMAT) during that same year.

To inquire about the specific requirements and to develop the program of study, contact:

Director of Graduate Business Programs
404 Gary M. Owen Building
Eastern Michigan University
Ypsilanti, MI 48197
734.487.4444

Accounting Information Systems

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

University Requirements..... 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Undergraduate Program Requirements..... 77 hours

Business Core Courses..... 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Accounting Information Systems Core Courses..... 33 hours

ACC296 The Accounting Cycle and Profession (3 hrs)
ACC340 Intermediate Accounting (3 hrs)
ACC342 Managerial Cost Accounting (3 hrs)

One course from the following:

ACC344 Principles of Taxation (3 hrs)
†ACC544 Federal Income Taxation (3 hrs)

ACC356 Accounting Information Systems (3 hrs)
ACC456 Accounting Information Systems Implementation and Projects (3 hrs)

†ACC548 Information Systems Audit and Control (3 hrs)
IS247 Software Design and Programming (3 hrs)
IS320 Data Networks (3 hrs)
IS380 Introduction to Databases (3 hrs)
†IS510 Introduction to Object Oriented Programming (3 hrs)

University Elective Courses..... 8 hours

Graduate Program Requirements 24 hours

Required Accounting Courses..... 9 hours

†ACC540 Corporate Financial Reporting (3 hrs)
ACC567 Professional Auditing (3 hrs)
ACC696 Accounting Theory, Research and Policy (3 hrs)

Restricted Elective Accounting Courses..... 9 hours

ACC510 Enterprise Systems (3 hrs)
ACC511 Accounting for E-Commerce (3 hrs)

One course from the following:

ACC541 Advanced Financial Accounting (3 hrs)
‡ACC546 Public and Nonprofit Sector Accounting (3 hrs)
ACC560 Fraud Examination (3 hrs)
ACC584 Tax Research Methods, Practice and Problems (3 hrs)

ACC585 Business Tax Planning (3 hrs)

ACC592 Special Topics (3 hrs)

ACC642 Strategic Cost Management (3 hrs)

ACC672 Investment and Tax Financial Planning (3 hrs)

ACC675 International Accounting and Taxation (3 hrs)

ACC681 Special Topics (3 hrs)

ACC699 Independent Study (3 hrs)

Restricted Non-Accounting Courses..... 6 hours

Select six credit hours from any combination of 500- to 600-level COB, DS, FIN, IS, POM, MGMT, MKTG, LAW or SCM courses

Program Total..... 150 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

All 200-level core courses listed above must be completed prior to admission to the College of Business.

Students must have a 3.0 GPA and a 500 GMAT to be admitted to the graduate portion of the program.

†Students must be admitted to the graduate portion of the program before registering for courses in the graduate section of this program of study. For ACC540, an exception requiring department approval may be requested.

‡Students planning on taking the CPA exam in Michigan must take ACC546

Accounting

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Undergraduate Program Requirements..... 77 hours

Business Core Courses..... 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Accounting Core Courses..... 21 hours

ACC296 The Accounting Cycle and Profession (3 hrs)
ACC340 Intermediate Accounting (3 hrs)
ACC342 Managerial Cost Accounting (3 hrs)
ACC356 Accounting Information Systems (3 hrs)
ACC496 Financial Management and Controllership (3 hrs)
†ACC540 Corporate Financial Reporting (3 hrs)

One course from the following:

ACC344 Principles of Taxation (3 hrs)
†ACC544 Federal Income Taxation (3 hrs)

Restricted Elective..... 3 hours

Select one course from the following. If ACC344 is selected for the accounting core course requirement, restricted elective course must be from the 500-level:

ACC442 Advanced Cost Accounting (3 hrs)
ACC450 Internal Auditing (3 hrs)

ACC475 International Accounting (3 hrs)	
ACC479 Special Topics (3 hrs)	
ACC491 Accounting Honors Thesis (3 hrs)	
ACC499 Directed Studies (3 hrs)	
ACC510 Enterprise Systems (3 hrs)	
ACC511 Accounting for E-Commerce (3 hrs)	
†ACC541 Advanced Financial Accounting (3 hrs)	
‡ACC546 Public and Nonprofit Sector Accounting (3 hrs)	
†ACC548 Information Systems Audit and Control (3 hrs)	
ACC560 Fraud Examination (3 hrs)	
ACC584 Tax Research, Methods, Practice and Problems (3 hrs)	
†ACC585 Business Tax Planning (3 hrs)	
†ACC592 Special Topics (3 hrs)	
University Elective Courses.....	17 hours

Graduate Program Requirements 24 hours

Required Accounting Courses..... 6 hours

- ACC567 Professional Auditing (3 hrs)
- ACC696 Accounting Theory, Research and Policy (3 hrs)

Restricted Elective Accounting Courses..... 12 hours

Twelve credit hours from the following:

- ACC510 Enterprise Systems (3 hrs)
- ACC511 Accounting for E-Commerce (3 hrs)
- ACC541 Advanced Financial Accounting (3 hrs)
- ‡ACC546 Public and Nonprofit Sector Accounting (3 hrs)
- ACC548 Information Systems Audit and Control (3 hrs)
- ACC560 Fraud Examination (3 hrs)
- ACC584 Tax Research Methods, Practice and Problems (3 hrs)
- ACC585 Business Tax Planning (3 hrs)
- ACC592 Special Topics (3 hrs)
- ACC642 Strategic Cost Management (SCM) (3 hrs)
- ACC672 Investment and Tax Financial Planning (3 hrs)
- ACC675 International Accounting and Taxation (3 hrs)
- ACC681 Special Topics (3 hrs)
- ACC699 Independent Study (3 hrs)

Restricted Non-Accounting Courses..... 6 hours

Select nine credit hours from any combination of 500- to 600-level COB, DS, FIN, IS, POM, MGMT, MKTG, LAW or SCM courses

Program Total..... 150 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business. Students must have a 3.0 GPA and a 500 GMAT to be admitted to the graduate portion of the program.

†Students must be admitted to the graduate portion of the program before registering for courses in the lower section of this program of study.

‡Students planning on taking the CPA exam must take ACC546

Finance Major

Finance majors acquire the knowledge and skills to analyze financial data and use financial concepts to value financial and real assets, and to help individuals and companies make decisions about allocating scarce resources. Students can develop their expertise in a variety of areas including corporate finance, banking, investments and international finance.

The general requirements for the bachelor of business administration degree, the academic major requirements below, and sufficient electives to meet the minimum of 124 hours must be completed for graduation.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

- MATH118 Linear Models and Probability (3 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements..... 60 hours

Business Core Courses..... 36 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- COB200 Introduction to Business (3 hrs)
- DS265 Business Statistics I (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- IS215 End-User Computing (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- ‡MGMT490 Business Policy (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 24 hours

Required Courses 15 hours

- FIN354 Investments (3 hrs)
- FIN357 Financial Markets and Institutions (3 hrs)
- FIN359 Intermediate Financial Theory (3 hrs)
- FIN360 Theory of Financial Decisions (3 hrs)
- FIN450 Problems in Financial Management (3 hrs)

Restricted Elective Courses 9 hours

Nine hours from the following:

- ACC340 Intermediate Accounting (3 hrs)
- ACC358 Analysis of Financial Statements (3 hrs)
- ACC540 Corporate Financial Reporting (3 hrs)
- ECON445 Economic Fluctuations and Forecasting (3 hrs)
- FIN352 Entrepreneurial Finance (3 hrs)
- FIN370 International Business Finance (3 hrs)
- FIN451 Introduction to Speculative Markets (3 hrs)
- FIN453 Commercial Banking (3 hrs)
- FIN454 Mortgage Banking (3 hrs)
- FIN479 Special Topics (3 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses 15 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Finance Major — Banking Track

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

- MATH118 Linear Models and Probability (3 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements..... 63 hours

Business Core Courses 36 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- COB200 Introduction to Business (3 hrs)
- DS265 Business Statistics I (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- IS215 End-User Computing (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- ‡MGMT490 Business Policy (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- POM374 Introduction to Production/Operations Management (3 hrs)

Discipline..... 27 hours

- ACC340 Intermediate Accounting (3 hrs)
- FIN354 Investments (3 hrs)
- FIN357 Financial Markets and Institutions (3 hrs)
- FIN359 Intermediate Financial Theory (3 hrs)
- FIN360 Theory of Financial Decisions (3 hrs)
- FIN450 Problems in Financial Management (3 hrs)
- FIN454 Mortgage Banking (3 hrs)
- FIN453 Commercial Banking (3 hrs)
- One course from the following:
 - FIN370 International Business Finance (3 hrs)
 - FIN451 Introduction to Speculative Markets (3 hrs)
 - ACC540 Corporate Financial Reporting (3 hrs)
 - FIN479 Special Topics (3 hrs)
 - ECON445 Economic Fluctuations & Forecasting (3 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses 12 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Accounting Minor

(For nonbusiness majors)

Required Courses..... 18 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- ACC296 The Accounting Cycle and Profession (3 hrs)
- ACC340 Intermediate Accounting (3 hrs)
- ACC342 Managerial Cost Accounting (3 hrs)
- ACC356 Accounting Information Systems (3 hrs)

Restricted Elective Course..... 3 hours

One course from the following:

- ACC344 Principles of Taxation (3 hrs)
- ACC442 Advanced Cost Accounting (3 hrs)
- ACC450 Internal Auditing (3 hrs)
- ACC475 International Accounting (3 hrs)
- ACC479 Special Topics (3 hrs)

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Finance Minor

(For nonbusiness majors)

Required Courses..... 21 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- FIN359 Intermediate Financial Theory (3 hrs)

Three courses from the following:

- ACC358 Analysis of Financial Statements (3 hrs)
- FIN354 Investments (3 hrs)
- FIN360 Theory of Financial Decisions (3 hrs)
- FIN370 International Business Finance (3 hrs)
- FIN450 Problems in Financial Management (3 hrs)
- FIN451 Introduction to Speculative Markets (3 hrs)
- FIN453 Commercial Banking (3 hrs)
- FIN479 Special Topics (3 hrs)

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Computer Information Systems

Address: 412 Gary M. Owen Building
 Phone: 734.487.2454
 E-mail: hung-lian.tang@emich.edu
 Web site: www.cis.emich.edu

See pages 316 and 351 for course descriptions.

The Department of Computer Information Systems prepares students for careers in computer information systems. The department strives to produce highly qualified information systems professionals who are able to analyze, architect and integrate systems solutions, being acutely aware that in today's fast-paced global economy, efficient, reliable and secure computer information systems are critical to an organization's competitiveness.

Advising assistance, both academic and career, is provided by the faculty and is available Monday through Thursday while school is in session, or by appointment.

The department also offers programs of studies leading to master of science in computer information systems, specialization in enterprise business intelligence for master of business administration, and the graduate certificate in computer information systems. These degree programs and courses are described in the graduate catalog.

The Department of Computer Information Systems has established articulation agreements with Macomb Community College and Washtenaw Community College. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

B.B.A. Computer Information Systems — Macomb Community College

B.B.A. Computer Information Systems — Washtenaw Community College

See page 11 for further details

Computer Information Systems Major

CIS program provides a learning environment where the students design, develop and deploy a wide range of integrated, end-to-end business applications and services designed to help small, medium and large organizations become more connected with customers, employees, partners and suppliers. Students learn about interoperability and explore road maps with products and technologies such as instant messaging, live communications, workflows and portals. Students also learn how to integrate line of organizations' applications and processes, how to perform business-to-business communications and how to develop comprehensive and reliable e-business solutions.

The Department of Computer Information Systems has established articulation agreements with Macomb Community College and Washtenaw Community College.

See page 11 for further details

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements..... 9 hours
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
One course from the following:
MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements 66 hours
Business Core Courses..... 36 hours
ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
†MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 30 hours
IS247 Introduction to Web Application Development (3 hrs)
IS315 Object-Oriented Application Development (3 hrs)
IS320 Business Data Communications and Computer Networks (3 hrs)
IS380 Introduction to Databases (3 hrs)
IS413 Information Technology Infrastructure and Security (3 hrs)
IS417 Systems Analysis and Design (3 hrs)
IS421 Enterprise Database Application (3 hrs)
IS425 Information Systems Project Management (3 hrs)
IS449 Information Systems Integration (3 hrs)
One course from the following:
IS350 Enterprise Resource Planning (3 hrs)
IS410 Business Intelligence (3 hrs)
IS416 System Software Administration (3 hrs)

Minor Requirements..... 0 hours
No minor is required.

University Elective Courses 9 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

†All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Computer Information Systems Minor

(For nonbusiness majors)

The Department of Computer Information Systems has established articulation agreements with Macomb Community College and Washtenaw Community College. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

Required Courses 21 hours
IS247 Introduction to Web Application Development (3 hrs)
IS320 Business Data Communication and Computer Networks (3 hrs)
IS380 Introduction of Databases (3 hrs)
IS417 Systems Analysis and Design (3 hrs)
IS425 Information Systems Project Management (3 hrs)
Two courses from the following:
IS315 Object-Oriented Application Development (3 hrs)
IS350 Enterprise Resource Planning (3 hrs)
IS410 Business Intelligence (3 hrs)
IS413 Information Technology Infrastructure and Security (3 hrs)
IS416 System Software Administration (3 hrs)

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Management

Address: 466 Gary M. Owen Building
Phone: 734.487.3240
E-mail: fwagnernm@emich.edu
Web site: www.mgt.emich.edu

See page 330, for course descriptions.

Graduates from the Department of Management are prepared to assume leadership roles in today's dynamic environment in both business and non-business organizations. They understand the roles of management as well as the complex social and environmental obligations faced in business today. In so doing, they are ready to apply the needed technical, human and conceptual skills.

Eastern Michigan University's management graduates understand and are able to apply the behavioral sciences in planning, implementation, communication, organizational design and development, and performance measurement to maximize organizational and employee achievement.

Faculty from the department provide both academic and career advising assistance Monday through Friday while school is in session, or by appointment. Management advisers are available to help students tailor a program that answers a variety of career needs in both general business and management.

A concentration in human resource management is available under the management major. See your adviser for details.

Details on the department's innovative master of science degree in human resource organizational development (HR/OD) are available in the graduate catalog.

General Business Major

The major in general business has been designed for students seeking a broad business background rather than specialization in any one functional area of business. The program for the general business major includes a minimum of 124 hours for graduation as stipulated in the catalog.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements 60 hours

Business Core Courses 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
‡MGMT490 Business Policy (3 hrs)
‡MKTG360 Principles of Marketing (3 hrs)
‡POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 24 hours

MGMT384 Human Resource Management (3 hrs)
MGMT388 Introduction to Entrepreneurship (3 hrs)
MGMT460 Management Skills (3 hrs)
*MGMT480 Management Responsibility and Ethics (3 hrs)
Restricted electives (12 hrs)
Twelve hours selected from at least two different functional areas in the College of Business. At least six hours must be at the 300- or 400-level.

Minor Requirements 0 hours

No minor is required.

University Elective Courses 15 hours

Program Total 124 hours

Note:

**Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.*

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy. POM374 can be take currently with MGMT490

‡All 300-level Core Courses listed above must be completed before enrollment in MGMT490 Business Policy. POM374 can be take currently with MGMT490

Entrepreneurship Major

The general requirements for the bachelor of business administration degree, the academic major requirements below and sufficient electives to meet the minimum of 124 hours for graduation must be completed.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements 60 hours

Business Core Courses 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
‡MGMT490 Business Policy (3 hrs)
‡MKTG360 Principles of Marketing (3 hrs)
‡POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 24 hours

MGMT384 Human Resource Management (3 hrs)
MGMT388 Introduction to Entrepreneurship (3 hrs)
*MGMT480 Management Responsibility and Ethics (3 hrs)
MGMT481 Managing the Entrepreneurial Venture (3 hrs)
MGMT488 Field Studies in Entrepreneurship (3 hrs)
One course from the following:
MKTG363 Retailing (3 hrs)
MKTG374 Business to Business Marketing (3 hrs)
MKTG430 Marketing of Services (3 hrs)
MKTG479 Special Topics:
MKTG473 Marketing and Product Innovation (3 hrs)

Two courses from the following:

ACC342 Managerial Cost Accounting (3 hrs)
ACC344 Principles of Taxation (3 hrs)
FIN352 Financial Management for Entrepreneurs (3 hrs)
MGMT460 Management Skills (3 hrs)
‡MKTG363 Retailing (3 hrs)
‡MKTG374 Business to Business Marketing (3 hrs)
‡MKTG473 Marketing and Product Innovation (3 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses 15 hours

Program Total 124 hours

Note:

**Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level Core Courses listed above must be completed prior to admission to the College of Business.*

‡Students may select one of these courses if not previously taken to meet marketing requirement.

‡All 300-level Core Courses listed above must be completed before enrollment in MGMT490 Business Policy. POM374 can be take currently with MGMT490

Management Major

The major in management prepares students for a variety of roles in the business world. These roles can include line and staff supervisory positions and human resource assignments. The general requirements for the bach-

Major requirements for a business administration degree include a minimum of 124 hours for graduation as stipulated in the catalog.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
One course from the following:
MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements..... 60 hours
Business Core Courses..... 36 hours
ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
†MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
‡POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 24 hours
MGMT384 Human Resource Management (3 hrs)
MGMT460 Management Skills (3 hrs)
*MGMT480 Management Responsibility and Ethics (3 hrs)
MGMT486 Organizational Change and Team Building (3 hrs)
Four courses from the following:
MGMT388 Introduction to Entrepreneurship (3 hrs)
MGMT403 Managerial Communication: Theory and Application (3 hrs)
MGMT450 Leadership Theories and Practice (3 hrs)
MGMT479 Special Topics (3 hrs)
MGMT481 Managing the Entrepreneurial Venture (3 hrs)
MGMT482 Compensation Administration (3 hrs)
MGMT483 Staffing Organizations (3 hrs)
MGMT484 Management-Union Relations (3 hrs)
MGMT485 Human Resource Development (3 hrs)
MGMT492 Managing World Business Communication (3 hrs)
MGMT495 International Management (3 hrs)
MGMT496 Current Issues in Human Resource Management (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 15 hours

Program Total..... 124 hours

Note:

*Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

All 200-level core courses listed above must be completed prior to admission to the College of Business.

†All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy. POM374 can be taken currently with MGMT490

‡All 300-level Core Courses listed above must be completed before enrollment in MGMT490 Business Policy. POM374 can be taken currently with MGMT490

General Business Minor

(For nonbusiness majors)

Required Courses..... 12 hours

ACC240 Principles of Financial Accounting (3 hrs)

LAW293 Legal Environment of Business (3 hrs)

MKTG360 Principles of Marketing (3 hrs)

One course from the following:

MGMT386 Organizational Behavior and Theory (3 hrs)

MGMT384 Human Resource Management (3 hrs)

Elective Courses..... 9 hours

Any three courses offered by the COB that were not taken as a required course.

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Students who plan to pursue the MBA degree at EMU are recommended to enroll in ACC241 Principles of Managerial Accounting, FIN350 Principles of Finance (3 hrs) or POM374 Introduction to Production/Operations Management (3 hrs) (if prerequisite DS265 or ECON310 is met) to fulfill foundation courses for the MBA program.

Entrepreneurship Minor

Required Courses..... 12 hours

ACC240 Principles of Financial Accounting (3 hrs)

MGMT386 Organizational Behavior and Theory (3 hrs)

MGMT388 Introduction to Entrepreneurship (3 hrs)

MKTG360 Principles of Marketing (3 hrs)

Restricted Elective Courses..... 9 hours

Nine hours from the following:

ACC241 Principles of Managerial Accounting (3 hrs)

COB200 Introduction to Business (3 hrs)

FIN352 Financial Management for Entrepreneurs (3 hrs)

IS215 End-User Computing (3 hrs)

LAW293 Legal Environment of Business (3 hrs)

MGMT202 Business Communications (3 hrs)

MGMT481 Managing the Entrepreneurial Venture (3 hrs)

MGMT488 Field Studies in Entrepreneurship (3 hrs)

MGMT480 Management Responsibility and Ethics (3 hrs)

MKTG363 Retailing (3 hrs)

MKTG374 Business to Business Marketing (3 hrs)

MKTG473 Marketing and Product Innovation (3 hrs)

MKTG430 Marketing of Services (3 hrs)

POM374 Introduction to Production/Operations Management (3 hrs)

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Management Minor

(For nonbusiness majors)

Required Courses 6 hours

MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)

Elective Courses 15 hours

Five courses from the following, three of which must be MGMT courses:

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
IS215 End-User Computing (3 hrs)
MKTG261 Contemporary Selling (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)
Any MGMT course not listed as a required course (3 hrs)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Department of Marketing

Address: 469 Gary M. Owen Building
Phone: 734.487.3323
E-mail: debra.craig@emich.edu
Web site: www.mkt.emich.edu

See pages 314, 320, 332 and 356 for course descriptions.

The marketing curriculum prepares students for careers in sales, advertising, product management, marketing management, marketing research, retailing, international business, purchasing, supply chain management and logistics.

Advising is provided by the department head and faculty and is available during scheduled office hours, or by appointment.

Graduate study leads to the master of business administration (MBA) degree. The MBA degree program and courses are described in the graduate catalog.

Marketing Major

The marketing major offers career preparation in sports marketing, advertising and sales promotion, international business, marketing research, purchasing and materials management, retailing, marketing channels, supply chain management and sales and sales management. Students may select any nine-hour combination of marketing electives, but they are encouraged to focus on their anticipated career path.

The general requirements for the bachelor of business administration degree, the academic major requirements below and sufficient electives to meet the minimum of 124 hours for graduation must be completed.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 9 hours

ECON201 Principles of Macroeconomics (3 hrs)

ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)
MATH122 Elementary Linear Algebra (3 hrs)

Major Requirements 60 hours

Business Core Courses 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
†MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Discipline 24 hours

Required Courses 15 hours

MKTG261 Contemporary Selling (3 hrs)
MKTG365 Consumer Behavior (3 hrs)
MKTG368 Marketing Strategy (3 hrs)
MKTG470 Marketing Research (3 hrs)
MKTG475 Marketing Planning and Management (3 hrs)

Concentration Courses 9 hours

Students may select from one of the following program areas or may select any nine-hour combination of marketing and supply chain management electives to create their own program in consultation with an adviser:

- Advertising and sales promotion
- International business
- Purchasing and materials management
- Marketing channels
- Supply chain management
- Retailing
- Sales and sales management
- Marketing management
- Sports marketing

Minor Requirements 0 hours

No minor is required.

University Elective Courses 15 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options. All 200-level core courses listed above must be completed prior to admission to the College of Business.

†All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

International Business Major

The international business major offers a multidisciplinary focus within the College of Business that prepares students for careers in international business and related fields. The IB major is multidisciplinary, involving material from all areas of the College of Business as well as economics and foreign language required components. While the IB program is administratively housed in the Marketing Department, the IB prefix is an interdisciplinary prefix taught by professors from all business disciplines. Student advising for the IB program is handled by the Director of International Business Program.

The IB degree can only be taken as a double major with an existing College of Business B.B.A. degree major (accounting, accounting information systems, economics, entrepreneurship, finance, general business, manage-

ment or marketing). Additionally, all IB students must fulfill a study abroad and take a foreign language sequence. The double major varies from 120-154 hours depending on the major chosen to combine with IB.

All students must take the required courses carrying an IB prefix. Additionally, students must take the international course offering within their second business major (e.g. an IB double major in finance would require FIN370 International Business Finance).

The IB program of study prepares students for careers in an increasingly integrated world economy. The IB major is designed to appeal to students who favor an interdisciplinary approach to professional business studies. The major should also be appealing to international students or students who are already bilingual. The program of study emphasizes both broad-based business knowledge in international business (including a required course in international business ethics) as well as specific geographical areas of expertise (through seminars on doing business in specific nations or regions).

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements.....61.5-67.5 hours
Business Core Courses..... 36 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- COB200 Introduction to Business (3 hrs)
- DS265 Business Statistics I (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- IS215 End-User Computing (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- ‡MGMT490 Business Policy (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- POM374 Introduction to Production/Operations Management (3 hrs)

Area Studies/Ethics Requirements..... 6 hours
Students may elect to take one course a maximum of three times to fulfill requirements as course content will change each semester to a different country or subregion within the broader area of study.

- IB375 Doing Business in Countries/Regions (1.5 hrs)
- IB475 Short Course Abroad (3 hrs)

Required IB Courses 4.5 hours
IB210 Fundamentals of Global Business (3 hrs)
IB370 International Business Ethics (1.5 hrs)

Restricted Electives..... 15 hours
Choose five courses (at least one course from your major field is required)

- ACC475 International Accounting (3 hrs)
- ECON370 Comparative Economic Systems (3 hrs)
- ECON480 International Economics (3 hrs)
- FIN370 International Business Finance (3 hrs)
- LAW350 International Business Law (3 hrs)
- MGMT492 Managing World Business Communication (3 hrs)
- MGMT495 International Management (3 hrs)
- MKTG375 International Business Transactions (3 hrs)
- MKTG460 International Marketing (3 hrs)

†Language Requirements..... 0-6 hours
All international business students must complete (FRNH, GERN, JPNE, SPNH) 261. Depending on the past foreign language learning experience of individual students, they may be able to enter 261 directly. Conversely, students may need to begin foreign language study at a lower level, to be determined by the placement test in the Department of Foreign Languages and Bilingual Studies.
FRNH/GERN/JPNE/SPNH 261 (3 hrs)

Functional Areas..... 21-33 hours

Select one from the following functional areas:

I. Accounting 21 hours

Required Courses

- ACC296 The Accounting Cycle and Profession (3 hrs)
- ACC340 Intermediate Accounting (3 hrs)
- ACC342 Managerial Cost Accounting (3 hrs)
- ACC344 Principles of Taxation (3 hrs)
- ACC356 Accounting Information Systems (3 hrs)
- ACC496 Financial Management and Controlship (3 hrs)

Restricted Electives

Choose one course from the following: (ACC475 is required to fulfill the international business restricted electives)

- ACC442 Advanced Cost Accounting (3 hrs)
- ACC450 Internal Auditing (3 hrs)
- ACC475 International Accounting (3 hrs)
- ACC479 Special Topics (3 hrs)
- ACC491 Accounting Honors Thesis (3 hrs)
- ACC499 Directed Studies (3 hrs)
- ACC540 Corporate Financial Reporting (3 hrs)
- ACC541 Advanced Financial Accounting (3 hrs)
- ACC546 Public and Nonprofit Sector Accounting (3 hrs)
- ACC548 Information Systems Audit and Control (3 hrs)
- ACC567 Professional Auditing (3 hrs)
- ACC585 Business Tax Planning (3 hrs)

II. Accounting Information Systems..... 33 hours

Required Courses

- ACC296 The Accounting Cycle and Profession (3 hrs)
- ACC340 Intermediate Accounting (3 hrs)
- ACC342 Managerial Cost Accounting (3 hrs)
- ACC344 Principles of Taxation (3 hrs)
- ACC356 Accounting Information Systems (3 hrs)
- ACC456 Accounting Information Systems Implementation and Projects (3 hrs)
- ACC548 Information Systems Audit and Control (3 hrs)
- IS247 Introduction to Web Application Development (3 hrs)
- IS315 Object-Oriented Application Development (3 hrs)
- IS320 Business Data Communications and Computer Networks (3 hrs)
- IS380 Introduction to Databases (3 hrs)

III. Computer Information Systems..... 30 hours

Required Courses

- IS247 Introduction to Web Application Development (3 hrs)
- IS315 Object-Oriented Application Development (3 hrs)
- IS320 Business Data Communications and Computer Networks (3 hrs)
- IS380 Introduction to Databases (3 hrs)
- IS413 IT Infrastructure and Security (3 hrs)
- IS417 Systems Analysis and Design (3 hrs)
- IS421 Enterprise Database Application (3 hrs)
- IS425 Information Systems Project Management (3 hrs)
- IS449 Information Systems Integration (3 hrs)

Restricted Electives

Choose one course from the following:

- IS350 Enterprise Resource Planning (3 hrs)
- IS410 Business Intelligence
- IS416 System Software Administration (3 hrs)

IV. Entrepreneurship24 hours

Required Courses

- MGMT384 Human Resource Management (3 hrs)
- MGMT388 Introduction to Entrepreneurship (3 hrs)
- MGMT460 Management Skills (3 hrs)
- MGMT481 Managing the Entrepreneurial Venture (3 hrs)

- MGMT488 Field Studies in Entrepreneurship (3 hrs)

Choose one course from the following:

- MKTG363 Retailing (3 hrs)
- MKTG374 Business to Business Marketing (3 hrs)
- MKTG430 Marketing of Services (3 hrs)
- MKTG473 Marketing and Product Innovation (3 hrs)
- MKTG479 Special Topics (3 hrs)

Choose two courses from the following:

- ACC342 Managerial Cost Accounting (3 hrs)
- ACC344 Principles of Taxation (3 hrs)
- FIN352 Financial Management for Entrepreneurs (3 hrs)
- MGMT480 Management Responsibility and Ethics (3 hrs)
- MKTG363 Retailing (3 hrs)
- MKTG374 Business to Business Marketing (3 hrs)
- MKTG473 Marketing and Product Innovation (3 hrs)

V. Economics18-21 hours

Required Courses

- ECON301 Intermediate Macroeconomic Analysis (3 hrs)
- ECON302 Intermediate Microeconomic Analysis (3 hrs)
- ECON310 Economic Statistics (3 hrs)
- ECON415 Introduction to Econometrics (3 hrs)

Restricted Electives

Choose three courses from any 300-400 level economics course. Choose two courses if you chose ECON370 under international business restricted electives. ECON480 is required to fulfill the international business restricted electives. (Business related topics are suggested.)

VI. Finance21 hours

Required Courses

- FIN354 Investments (3 hrs)
- FIN357 Financial Markets and Institutions (3 hrs)
- FIN359 Intermediate Financial Theory (3 hrs)
- FIN360 Theory of Financial Decisions (3 hrs)
- FIN450 Problems in Financial Management (3 hrs)

Restricted Electives

Choose two courses from the following: (FIN370 is required to fulfill the international business restricted electives)

- ACC340 Intermediate Accounting (3 hrs)
- ACC540 Corporate Financial Reporting (3 hrs)
- ECON445 Economic Fluctuations and Forecasting (3 hrs)
- FIN352 Financial Management for Entrepreneurs (3 hrs)
- FIN370 International Business Finance (3 hrs)
- FIN451 Introduction to Speculative Markets (3 hrs)
- FIN453 Commercial Banking (3 hrs)
- FIN454 Mortgage Banking (3 hrs)
- FIN479 Special Topics (3 hrs)

VII. General Business12-24 hours

Required Courses

- MGMT384 Human Resource Management (3 hrs)

- MGMT388 Introduction to Entrepreneurship (3 hrs)
- MGMT460 Management Skills (3 hrs)
- MGMT480 Management Responsibility and Ethics (3 hrs)

Restricted Electives

Choose four courses from at least three different departments in the College of Business. At least two courses must be at the 300-400 level. (The restricted elective requirement may be fulfilled by completing the international business restricted elective requirements.)

VIII. Management21 hours

Required Courses

- MGMT384 Human Resource Management (3 hrs)
- MGMT460 Management Skills (3 hrs)
- MGMT480 Management Responsibility and Ethics (3 hrs)
- MGMT486 Organizational Change and Team Building (3 hrs)

Restricted Electives

Choose three courses from the following: (MGMT495 is required to fulfill the international business restricted electives.)

- MGMT388 Introduction to Entrepreneurship (3 hrs)
- MGMT403 Managerial Communication: Theory and Application (3 hrs)
- MGMT450 Leadership Theories and Practice (3 hrs)
- MGMT479 Special Topics (3 hrs)
- MGMT481 Managing the Entrepreneurial Venture (3 hrs)
- MGMT482 Compensation Administration (3 hrs)
- MGMT483 Staffing Organizations (3 hrs)
- MGMT484 Management-Union Relations (3 hrs)
- MGMT485 Human Resource Development (3 hrs)
- MGMT495 International Management (3 hrs)
- MGMT496 Current Issues in Human Resource Management (3 hrs)

IX. Marketing18-21 hours

Required Courses

- MKTG261 Contemporary Selling (3 hrs)
- MKTG365 Consumer Behavior (3 hrs)
- MKTG368 Marketing Strategy (3 hrs)
- MKTG470 Marketing Research (3 hrs)
- MKTG475 Marketing Planning and Management (3 hrs)

Restricted Electives

Choose two courses from the following or one course if you selected MKTG375 under the international business restricted electives. MKTG460 is required to fulfill the International Business restricted electives.

- MKTG363 Retailing (3 hrs)
- SCM385 Logistics (3 hrs)
- MKTG369 Advertising (3 hrs)
- MKTG374 Business to Business Marketing (3 hrs)
- MKTG375 International Business Transactions (3 hrs)
- MKTG425 Sports and Event Marketing (3 hrs)
- MKTG430 Marketing of Services (3 hrs)
- MKTG460 International Marketing (3 hrs)
- MKTG461 Sales Management (3 hrs)
- SCM380 Introduction to Supply Chain Management (3 hrs)
- MKTG473 Marketing and Product Innovation (3 hrs)
- MKTG474 Promotional Strategy (3 hrs)

MKTG479 Special Topics (3 hrs)
MKTG499 Independent Study (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 0-10 hours

Program Total 124-149 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

**All 200-level core courses listed above must be completed prior to admission to the College of Business.*

†Foreign language credits may be used to satisfy general education requirements I.3 and IV.1. Students who have learned English as a second language may have minimum requirements of French, German, Japanese or Spanish waived.

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Supply Chain Management Major

General Education Requirements 40
See page 46 for further information regarding General Education requirements.

Major Requirements 63 hours

Business Core Courses 36 hours

ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
COB200 Introduction to Business (3 hrs)
DS265 Business Statistics I (3 hrs)
FIN350 Principles of Finance (3 hrs)
IS215 End-User Computing (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
‡MGMT490 Business Policy (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)

Supply Chain Management Required Courses 15 hours

IB210 Fundamentals of Global Business (3 hrs)
SCM380 Introduction to Supply Chain Management (3 hrs)
SCM385 Logistics (3 hrs)
SCM386 Purchasing and Supply Management (3 hrs)
SCM465 Global Supply Chain Management (3 hrs)

Restricted Electives 12 hours

SCM464 Advanced Logistics (3 hrs)
LAW350 International Business Law (3 hrs)
SCM420 Operations Planning and Scheduling in Supply Chain (3 hrs)
INDT346 Industrial Climate (3 hrs)
QUAL320 Industrial Quality Control (3 hrs)
IS350 Enterprise Resource Planning (3 hrs)
MKTG374 Business-to-Business Marketing (3 hrs)
MKTG363 Retailing (3 hrs)
MKTG368 Marketing Strategy (3 hrs)

University Electives 21 hours
In addition to the required courses and restricted electives, the SCMIT recommends that SCM students consider taking IS425 and IS410.

Program Total 124 hour

Note:

‡All 300-level core courses listed above must be completed before enrollment in MGMT490 Business Policy.

Marketing Minor

(For nonbusiness majors)

Required Courses 6 hours

MKTG261 Contemporary Selling (3 hrs)
MKTG360 Principles of Marketing (3 hrs)

Restricted Elective Courses 15 hours

Five courses from the following, at least three must be in marketing (all five may be in marketing).

ACC240 Principles of Financial Accounting (3 hrs)
MGMT202 Business Communication (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)
MKTG363 Retailing (3 hrs)
SCM385 Logistics (3 hrs)
MKTG365 Consumer Behavior (3 hrs)
MKTG368 Marketing Strategy (3 hrs)
MKTG369 Advertising (3 hrs)
MKTG374 Business to Business Marketing (3 hrs)
MKTG375 International Business Transactions (3 hrs)
MKTG379 Special Topics (3 hrs)
MKTG425 Sports and Event Marketing (3 hrs)
MKTG430 Marketing of Services (3 hrs)
MKTG460 International Marketing (3 hrs)
MKTG461 Sales Management (3 hrs)
SCM380 Introduction to Supply Chain Management (3 hrs)
MKTG470 Marketing Research (3 hrs)
MKTG473 Marketing and Product Innovation (3 hrs)
MKTG474 Promotional Strategy (3 hrs)
MKTG475 Marketing Planning and Management (3 hrs)
MKTG479 Special Topics (3 hrs)
MKTG499 Independent Study (3 hrs)
SCM386 Purchasing and Supply Management (3 hrs)
SCM465 Global Supply Chain Management (3 hrs)
SCM464 Advanced Logistics (3 hrs)

Minor Total 21 hours

Note:

College of Business approval is required for students planning to enroll in 300- to 400-level business courses. All students must meet the specific course prerequisites for enrollment in any College of Business course.

All minors must have at least six hours of course work at the 300-level or above.

Supply Chain Management Minor

Required Courses 15 hours

MKTG360 Principles of Marketing (3 hrs)
POM374 Introduction to Production/Operations Management (3 hrs)
SCM380 Introduction to Supply Chain Management (3 hrs)
SCM385 Logistics (3 hrs)
SCM386 Purchasing and Supply Management (3 hrs)

Restricted Electives 6 hours

Two courses from the following:

SCM464 Advanced Logistics (3 hrs)
LAW350 International Business Law (3 hrs)
SCM420 Operations Planning and Scheduling in Supply Chain (3 hrs)
INDT346 Industrial Climate (3 hrs)
QUAL320 Industrial Quality Control (3 hrs)
IS350 Enterprise Resource Planning (3 hrs)
MKTG374 Business-to-Business Marketing (3 hrs)
MKTG363 Retailing (3 hrs)
MKTG368 Marketing Strategy (3 hrs)
IB210 Fundamentals of Global Business (3 hrs)
SCM465 Global Supply Chain Management (3 hrs)

Minor Total 21 hours

College of Education

Dean

Vernon C. Polite
310 John W. Porter Building
Phone: 734.487.1414

Associate Dean

Michael Bretting
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Phone: 734.487.1414

Associate Dean:

Academic Accountability

Shawn Quilter
206 Porter Building
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Assistant Dean:

Field Placements

Barbara Gorenflo
206 Porter Building
Phone: 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 and contributing participants and leaders in a democratic and diverse society.

Given the size and complexities of the professional preparation programs of Eastern Michigan University, the complicated interactions between University programming and external authorities, the rapid change that is occurring to keep EMU professional education programming on “the cutting edge,” and other such factors, it is virtually impossible for any single faculty or staff member to be completely and fully informed on every matter that might be raised.

Faculty and staff members make every effort to be helpful to students and departmental/program materials are intended to inform. Even so, none of these sources is infallible, especially in complicated situations.

Thus, there is the need for a single, authoritative source of information about professional education curricula and academic policy on which the entire EMU community can draw and in which all can have confidence. This portion of the catalog is intended to serve that purpose.

The Governance of Professional Education

Eastern Michigan University is committed to the principle that teacher preparation is a campus-wide responsibility. Many EMU organizational entities are involved with services to prospective teachers (and other professional personnel) and teacher (and other professional personnel) preparation program delivery. Several established faculty bodies are charged with roles involving curriculum and academic policy issues.

Committee on Basic Programs

The committee on basic programs (CBP) is charged, under its governing document, with the coordination of initial teacher preparation. The CBP is composed of elected faculty members from three academic colleges, each representing one or more program areas in which the institution prepares beginning teachers; students; and major administrators of the teacher education program. The determinations of the CBP are made as recommendations to the education council.

Committee on Advanced Programs

The committee on advanced programs is charged with matters having to do with any Eastern Michigan University preparation program that is an “advanced” program for professional education personnel (as defined by NCATE) shall flow through the Committee on Advanced Programs.

Committee on Professional and Affiliated Programs

The committee on professional and affiliated programs is charged with matters having to do with any College of Education program (i) at either the undergraduate or graduate level and (ii) that does not fall under the responsibility of either the Committee on Basic Programs or the Committee on Advanced Programs (i.e. those programs of the College of Education that do not lead to a credential from the Michigan Department of Education) shall flow through the Professional and Affiliated Programs Committee.

Committee on Diversity

The committee on diversity is charged with the unit designs, implements, and evaluates curriculum and experiences for candidates to acquire and apply the knowledge, skills, and dispositions necessary to help all students learn. These experiences include working with diverse higher education and school faculty, diverse candidates, and diverse students in P-12 schools.

College of Education Council

The College of Education Council (COE Council) is composed of elected members of the faculty of the College of Education. CBP recommendations are forwarded to the COE Council for its review. Positive recommendations are forwarded through the dean of the College of Education to the Office of the Provost and Vice President for Academic Affairs for further review and approval.

All matters related to the advanced preparation of teachers and related to the preparation of all other types of educational personnel (e.g., principals, counselors) are processed through the committee on advanced programs and the COE Council determinations are forwarded through the dean of the College of Education to the office of the Provost/Vice President for Academic Affairs.

Central Institutional Structures

An item approved by the College of Education Council and also approved by the dean of the College of Education is transmitted to the Office of the Provost and Vice President for Academic Affairs. From there, the routing to obtain closure on the item, depending on the nature of the item, might be to one or more of several different entities, including the Faculty Council, the Graduate School, the Board of Regents, etc. The policies, procedures, minutes, etc. of these various structures are available through the executive officer of the body or the relevant Eastern Michigan University administrator.

General Information Applicable to All Prospective Teachers

Eastern Michigan University is authorized and approved by the Michigan Department of Education and accredited by the National Council for Accreditation of Teacher Education to prepare the following types of teachers. Successful completion of the appropriate program of studies leads to a recommendation for the Michigan provisional certificate.

Elementary

Several approaches for establishing eligibility for recommendation for certification as an elementary teacher are offered. One approach includes the course work necessary for eligibility for the additional early childhood education endorsement. See the curricula in both elementary and early childhood education.

Secondary and K-12

Programming is offered to establish eligibility for recommendation for certification as a secondary teacher in the following major fields: biology, business education (business, management, marketing and technology), chemistry, computer science, earth science, economics, English, French, geography, German, history, marketing education, mathematics, physics, political science, psychology, social studies, sociology, Spanish and speech (communication). Preparation through a minor is available in several additional fields. See the curricula for these secondary programs.

Programming is offered to establish eligibility for recommendation for certification as a K-12 teacher in the following fields: Japanese language and culture, music (instrumental), music (vocal), physical education, technology and design and visual arts education. See the curricula for these K-12 programs.

Special Education

In general, one must complete requirements for becoming an elementary or secondary teacher prior to or simultaneously with completing additional requirements for becoming a special education teacher. At the baccalaureate level, EMU prepares special education teachers in the areas of emotional impairment, hearing impairment, cognitive impairment, physical and other health impairment and visual impairment. The speech and language pathology program is a five-year course of study that culminates in a master's degree. The learning disabilities program is a graduate-level program only. See the curricula for these special education programs.

Endorsements

One may become eligible to become endorsed in a second (or third or fourth) teaching field. In addition to the teaching fields given above, course work leading to eligibility for recommendation for a certification endorsement is available in such fields as bilingual Spanish, health and vocational business education.

Employment Opportunities

The demand for certain kinds of teachers is much greater, both in Michigan and nationally, than it is for other kinds of teachers. In addition, it

is sometimes difficult to place student teachers in certain teaching fields. Accordingly, prospective teachers are urged to consult with an adviser at an early point so as to optimize ultimate employment opportunities through careful selection of a course of study.

Education Honor Society

Kappa Delta Pi, International Honor Society in Education, has been in existence since 1911. Pi Chapter, the chapter at Eastern Michigan University, was established at Michigan State Normal School on June 20, 1922. It has operated continuously since that date, the 16th chapter chartered out of more than 600 in the world. In 1999, Pi Chapter was recognized as an "ACE" (Achieving Chapter Excellence) chapter. Among the activities of Pi Chapter are the following:

- Assisting with the care and welfare of the Town Hall School, the 1895 one-room schoolhouse;
- Adoption of Bellevue Elementary School in Detroit;
- Overseeing the Kappa Delta Pi and Lyman-Lindquist Scholarship Funds;
- Making juried presentations at state, regional and international convocations;
- Helping graduating students learn how to better present themselves in interviews and in the preparation of credential files and portfolios;
- Working to promote pre-service and in-service programs for prospective and practicing educators;
- Promoting and assisting in the establishment of the Capital National de México (the Mexican National Chapter of Kappa Delta Pi) at la Universidad Autónoma de Querétaro, Qro.
- Working for the betterment of multicultural education and promoting diversity in the educator force.

Applications are available on the Kappa Delta Pi bulletin board outside 226 Porter and at the Department of Teacher Education, 313 Porter. Membership requirements are 3.2 GPA (undergraduates) or 3.5 GPA (graduates and post-baccalaureate certification students) and admission to a teacher education program. First and second year students who intend to become teachers can pledge the chapter until they are eligible to become regular members.

For more information, please refer to the International Kappa Delta Pi web site: www.kdp.org/

Certification

Six-year Provisional Teaching Certificates are conferred by the Michigan State Board of Education upon recommendation of Eastern Michigan University. The University recommends for provisional certification only those students who have satisfied the curricular requirements in one of the teacher education degree programs, and have completed and passed the appropriate state competency tests.

Certificates always expire on June 30 of the calendar year. The two certificates recommended by Eastern Michigan University are:

**State Elementary Provisional Certificate*, which certifies the holder to teach all subjects in elementary grades (K-5) and appropriate majors and/or minors in grades 6-8 middle school, and 6-8 self-contained.

**State Secondary Provisional Certificate all subjects*, which certifies the holder to teach majors and minors in grades 7-12.

Certificates are issued by the Michigan State Department of Education. Issue date and expiration date are printed on the face of the certificate.

Note:

**A holder of this certificate who has completed EMU's curricular requirements in art, speech pathology, industrial arts, music, Japanese or physical education is normally eligible to teach in the speciality in grades K-12.*

Vocational certificates qualify the holder to teach in the programs named below in schools offering programs that are reimbursed by federal and state funds allocated for that purpose. The vocational certificates issued are:

State Secondary Provisional Certificate with vocational endorsement in Office and/or Distributive Education.

State Secondary Provisional Certificate with vocational endorsement in Trade and Industrial Education.

Information on continuing certification may be obtained from the coordinator of continuing certification, 206 Porter.

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, 734.487.1416) 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://mdoe.state.mi.us/teachercert/>

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 “Teacher Endorsement” or “Teacher Certification.” This requires an application, application fees and undergraduate transcripts (401 Pierce, 734.487.3060).

Teacher Preparation Program

In order to pursue the sequence of courses necessary to complete eligibility for recommendation for certification, one must apply for and be admitted to the teacher preparation program. Admission requirements are common for all teacher preparation programs, except that certain special education programs have additional requirements.

Application for admission to the teacher preparation program should occur immediately after the semester in which the student has earned 56 credit hours. Transfer students with more than 56 credit hours should apply immediately after the semester in which they have earned 12 hours at EMU, including at least one course in their major.

Admission to the teacher certification program is not automatic. Only those persons who have formally applied are considered for admission. Not all persons who apply become eligible for admission.

Application forms and additional information are available online at <http://www.emich.edu/coe/oas>.

Criteria

Criteria for admission to and continuance in the teacher preparation program are:

1. Completion of 56 credit hours with a minimum EMU overall GPA of at least 2.5 and at least a 2.5 GPA in the major (secondary and where applicable, elementary) or three minors (elementary).
 - a. Post-baccalaureate students whose overall undergraduate GPA is 2.5 or above must either:
 - i. apply as a post-baccalaureate student through the Office of Admissions if all admission requirements to the teacher preparation program are met, or
 - ii. enter as a non-degree student through the Office of Admissions, then apply for admission to the teacher preparation program as a post-baccalaureate student through the Office of Admissions.

b. Post-baccalaureate students whose undergraduate GPA is below 2.5 must either:

- i. apply to the second bachelor's program and satisfy the GPA requirement by completing 24 credit hours of approved undergraduate work in Michigan-approved substantive fields at EMU and earn a GPA of 2.5 or better. At least one half of the credits must be in the major or minor(s) which the student expects to teach. Students must submit the list of courses for approval to the College of Education Office of Academic Services during the first semester of course work. Students may not enroll in courses for which admission to the teacher preparation program is a prerequisite before the 24 credit hours are completed. The second bachelor's degree must be posted before the student is approved for student teaching.
- ii. complete a master's degree at an accredited institution with a 3.0 GPA. Students may not enroll in courses for which admission to the teacher preparation program is a prerequisite before the master's degree is completed.

2. Demonstrated competence in:

- a. speaking effectiveness as determined by successful completion of the required course(s) in speech;
 - b. reading ability as determined by EMU admission policies, successful completion of general education requirements; and successful completion of the state-mandated basic skills test.
 - c. written expression as determined by successful completion of all general education requirements, a review of an autobiography submitted as a part of the teacher preparation program admission process; and successful completion of the state-mandated basic skills test.
 - d. mathematical computation as determined by EMU admissions policies, completion of general education requirements in science and mathematics with a C or better in each course, and successful completion of the state-mandated basic skills test.
 - e. all professional education courses must be completed with a “C” or higher.
3. Satisfactory health status, including tuberculosis and speech and hearing screenings.
 4. Social and emotional adjustment: account is taken of standards of conduct expected on Eastern's campus; the degree to which students meet their academic, financial, moral, social and other obligations; and the practice of good citizenship among fellow students.
 5. Freedom from any kind of probation — administrative or academic. While on academic probation, students may not register for, remain in, or receive credit for a professional education course. This includes all methods classes taught in departments outside of the College of Education.
 6. Satisfactory Moral Turpitude status and professional dispositions.

Undergraduate students on academic probation may not earn credit for any graduate-level on-campus or off-campus courses (500-level and above).

Elementary and Early Childhood Programs

The curricula for the elementary education programs leading to the bachelor's degree consists of (1) an appropriately selected group of courses in general education, (2) a major and minor (or three minors) from approved lists and (3) a required group of professional education courses. If the student wishes to be endorsed in a subject field, an additional minor from the approved list will be required. A variation of this program is available for those who wish to be prepared as early childhood teachers. Satisfactory completion of these courses and requirements will satisfy requirements for a baccalaureate and for eligibility for recommendation for the State of Michigan Provisional Elementary Certificate. See General Information Applicable to All Prospective Teachers (page 180) for requirements having to do with admission to, retention in, and exit from the teacher education program.

Ordinarily, the degree earned is the bachelor of science. The bachelor of arts degree requires completion of 75 credit hours in the liberal arts and one year of college credit in foreign language.

The State Elementary Provisional Certificate is valid for teaching all subjects K–5, for teaching in self-contained classrooms in grades six through eight, and for teaching in one's major or minor areas of concentration in grades six through eight. The Michigan Test for Teacher Certification (MTTC) for elementary education is #83, "Elementary Education." A person is not considered for "program completion" until this test is passed.

An active articulation agreement exists between this program Henry Ford Community College, Lansing Community College and Washtenaw Community College. For further details, see the Articulation Agreements section, page 11.

Approved Majors for the Elementary Program

- Elementary Integrated Science
- Language Arts Group
- Mathematics for the Elementary Teaching Certificate
- Reading
- Social Studies Group Major for Elementary Education

Approved Minors for the Elementary Program and the Special Education-Elementary Programs

- Arts Group minor (not available with technology minor)
- Bilingual-Bicultural Education Spanish-English
- Early Childhood Education
- Elementary Integrated Science
- French, German and Spanish Language
- Health
- Language Arts Group
- Mathematics for the Elementary Teaching Certificate
- Physical Education for Special Education (only for special education majors)
- Reading
- Social Studies Group (Elementary)
- Structure of the Disciplines
- Technology and Design Education

Secondary (Middle-High School) and K-12 Programs

The curricula for the secondary/K-12 teacher education programs consist of (1) an appropriately selected group of courses in general education, including the EMU General Education program, (2) an appropriately chosen major and (certain teaching fields excepted) minor and (3) a required group of professional education courses. See General Information Applicable to All Prospective Teachers for requirements having to do with admission to, retention in, and exit from the teacher education program. Satisfactory completion of these courses and requirements will satisfy requirements for a baccalaureate degree and for eligibility for recommendation for the State of Michigan Provisional Secondary Certificate.

Ordinarily, the degree earned is the bachelor of science; however, the bachelor of arts degree may be obtained by completion of 75 credit hours in the liberal arts and one year of college credit in foreign language.

An active articulation agreement exists between this program and Henry Ford Community College and Washtenaw Community College. For further details, see the Articulation Agreements section, page 11.

Approved Majors for Secondary (Middle-High School) and K-12 Teachers

- Secondary Programs
 - Biology
 - Business Management, Marketing, and Technology
 - Chemistry
 - Communication and Theater Arts (speech)
 - Computer Science
 - Earth Science

- French Language
- Geography
- German Language
- History
- Language, Literature and Writing (English)
- Mathematics
- Physics
- Political Science
- Psychology
- Social Studies (only with specified minors)
- Sociology
- Spanish Language

K-12 Programs

- French Language
- German Language
- Japanese Language and Culture
- Music (Instrumental)
- Music (Vocal)
- Physical Education
- Spanish Language
- Technology and Design Education
- Visual Arts Education

Approved Minors for Secondary, K-12 and Special Education-Secondary Programs

- Bilingual-Bicultural Education Spanish-English
- Biology
- Chemistry
- Communication and Theatre Arts (speech)
- Computer Science
- Earth Science
- French Language
- †Geography
- German Language
- Health
- History
- Language, Literature and Writing (English)
- Mathematics
- Physical Education
- Physical Education for Special Education Majors (available only to special education majors)
- Physics
- †Political Science (requires history or social studies major)
- †Psychology
- †Sociology
- Spanish Language

Note:

†Not available with a Special Education major

Special Education Programs

Admission

Admission requirements to the University, the teacher certification program and the Department of Special Education must be met by students intending to major in the programs listed below. However, students may indicate their intention to major in special education upon entrance to the University. Formal application for admission to any of the special education programs of study will be considered only when supported by a recommendation from a faculty member in the Department of Special Education and following acceptance into the teacher education program. Special Education program area faculty determine admission to the department.

Admission Criteria (For All Programs Except Speech/Language Pathology)

1. Completion of 56 hours of college credit and with an EMU grade point average of 2.5 or better.

2. Completion of SPGN251 and the introductory course in the major area of study with a grade of C or better. These introductory courses are:
 - a. Emotional impairment: SPEI240 and SPEI301
 - b. Hearing impairment: (see statement under Hearing Impairment)
 - c. Cognitive impairment: SPCI240 and SPCI350
 - d. Physical and other health impairment: SPPI240 and SPPI310
 - e. Visual impairment: Demonstrate proficiency in typing
3. Successful completion of the state-mandated basic skills test.
4. Submission of a formal application for admission to the Department of Special Education supported by a recommendation from a faculty member in the Department of Special Education.

Speech and Language Impaired Admission and Continuance Criteria

The following criteria must be met before admission to the undergraduate program is granted:

1. Must complete 35 to 45 credit hours with a minimum GPA of 2.75.
2. Must have taken the Basic Skills Test, which assesses math, reading comprehension, grammar and writing skills. Must achieve or surpass the score established by the College of Education.

Criteria for continuance in a program of study in the Department of Special Education is dependent upon:

1. Maintenance of a 2.5 cumulative grade point average.
2. Maintenance of a 2.5 cumulative grade point average in major courses in program of study.
3. Completion of all courses in the major with a grade of C or better. Students will be required to retake any major course in which they earn a grade below C. A major course may be repeated only once.
4. Demonstration of performance that indicates reasonable aptitude, maturity, stability, skill and understanding necessary for success in the professional field of special education.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty of a program area to apprise them of any extenuating circumstances that may aid them in arriving at a fair and equitable decision. The faculty decision will be final and will be transmitted to the student in writing by the department head.

Nothing in this department's procedures will negate University or College of Education action for students on academic, administrative or social probation.

Termination from the Program

Students who fail to comply with the continuation criteria stated above will be notified in writing of their termination from the program. Students so notified have the right to appeal such termination through normal University channels. In some cases, a student will be required to meet with program area faculty for discussion of academic performance and continuation in the program.

General Information

Fieldwork in both general and special education is required. Pre-student teaching experiences are required of all candidates pursuing a teaching certificate (see Pre-student Teaching). Majors in special education are required to complete practica or pre-clinical experiences in addition to those required for teacher certification and should consult with their advisers regarding specific requirements within their designated areas of special education.

Student teaching in either elementary or secondary education must be successfully completed prior to the special student teaching placement. Special student teaching assignments are arranged and approved by the department upon the recommendation of the faculty within the designated area of special education.

Teacher Certification and Special Education Endorsement

All program majors earn a provisional teaching certificate in elementary or secondary education. Additionally, successful completion of a major in special education results in the achievement of an endorsement as a teacher of students with a given disability. Majors in speech and language impairment choose between teacher certification or a health care specialty.

The professional entry-level credential in speech-language pathology (speech and language impaired) is the master's degree. Students who are awarded the bachelor's degree in speech-language pathology program at Eastern Michigan University will compete with applicants from other institutions for admission.

Each of the programs of study in special education meets or exceeds minimum course experience or competency requirements established by the Michigan State Board of Education for that endorsement area. However, meeting Michigan teaching certification and endorsement requirements does not necessarily meet requirements for teacher certification or endorsement in other states. All special education programs of study are recognized and approved for accreditation by the Council for Exceptional Children (CEC).

The programs in Speech-Language Pathology and in Hearing Impairment are also accredited by national professional associations. The American Speech-Language-Hearing Association (ASHA) accredits the department's program in speech-language pathology and in Council on Education of the Deaf (CED) accredits the department's program in hearing impairment.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Pre-Student Teaching Field Experiences

Departmental Administration
Field Experience Coordinator
Address: 313 Porter
Phone: 734.487.7120 ext. 2502 or
734.487.3260

For Field Experiences in Teacher Education (FETE) courses

Dept. of Teacher Education
Address: 313 Porter
Phone: 734.487.3260

The pre-student teaching field experiences require prospective teachers to work with children or youth in classroom settings. They are designed to help prospective teachers evaluate their own abilities as teachers and to affirm their decision about choosing teaching as a career. They also enable prospective teachers to understand how the professional education courses in human development and learning, social aspects of teaching and curriculum and methods relate to the classroom.

A minimum of 100 clock hours of approved pre-student teaching field experiences is required of all candidates for a recommendation for a teaching certificate. See the program descriptions for the exact requirement in each program. At least 50 percent of the experience must be in a classroom situation with the age group and (in the case of secondary/K-12) in the subject matter area the student plans to teach. Students in elementary and secondary programs complete 60 pre-student teaching hours in FETE (Field Experiences in Teacher Education) courses. Students should make sure that their pre-student teaching field experiences include opportunities to work with students from different socio-economic levels and cultures.

By the end of the pre-student teaching field experience, the student should be able to:

1. Discuss the ways in which schools and communities interact to impact student learning.
2. Describe and reflect upon teaching/learning activities in a variety of settings.
3. Plan, carry out and assess a series of learning activities for an individual student or group of students.
4. Describe and reflect upon a variety of classroom environments and how they affect student learning.
5. Make a valid decision concerning teaching as a career.

Most students will complete approximately 60 of their 100 pre-student teaching hours through required Field Experiences in Teacher Education (FETE) courses. Students who complete all three FETE courses are

not required to complete an additional pre-student teaching coursepack. Majors in special education should consult their advisers or the pre-student teaching director concerning overlapping preclinical requirements.

Student Teaching

Departmental Administration

Barbara Gorenflo, Director
Address: 206 Porter
Phone: 734.487.1416
E-mail: bgorenflo@emich.edu

See page 290 for student teaching course descriptions.

Applicability

All candidates for recommendation for certification as a teacher are required to fulfill a student teaching requirement in the area of their academic preparation and at the level for which certification is being sought.

Students desiring certification in the elementary, secondary and K-12 programs are required to complete successfully 12 credit hours of student teaching.

Students in special education areas (emotional impairment, hearing impairment, cognitive impairment, physical and health impairment and visual impairment) are required to fulfill six credit hours of student teaching with nonimpaired children and an additional 10 credit hours of student teaching in their area of specialization.

Students desiring certification in bilingual education are required to fulfill eight credit hours of student teaching with English-speaking children and an additional four credit hours of student teaching in bilingual education.

Application Deadlines

Applications for student teaching may be obtained from www.emich.edu/coe/oas/apps.html, and should be completed and returned to 206 Porter in accordance with the following schedule:

Fall student teaching:	previous January 15
Summer student teaching:	previous January 15 (for certified teachers only)
Winter student teaching:	previous June 15
Spring student teaching:	previous January 15 (for certified teachers only)

Eligibility for Student Teaching

To qualify for a student teaching placement, students must satisfy the following criteria:

1. Fulfill the requirements of the pre-student teaching field experience.
2. Demonstrate minimum levels of skills in reading, written English and mathematics as defined and measured by the state-mandated basic skills test.
3. Demonstrate competence in the teaching field(s) through a satisfactory score on state-mandated subject area test(s), if required by the state.
4. Provide written recommendations from course instructors and field supervisors demonstrating a minimum level of skill in working with students. These become a part of the student teacher's file.
5. Have a positive recommendation from the designated representative of the department in which the major is located.
6. Register in the appropriate student teaching course (see course descriptions).
7. Carry a class load of no more than 15 credit hours. To be considered for more than 15 credit hours, the student must have a 3.0 cumulative GPA.
8. Complete one semester of resident study at EMU prior to student teaching. Exceptions are subject to approval by the dean of the College of Education or the Dean's designee.
9. Complete a satisfactory background check.

The following prerequisites are to be completed prior to student teaching and cannot be taken concurrently:

1. CURR304 Curriculum and Methods: Elementary (Elementary) or CURR305 Curriculum and Methods: Secondary (Secondary and K-12);
2. EDPS322 Human Development and Learning (all except Special Education) or EDPS325 Life Span Human Growth and Development (Special Education);
3. SOFD328 Schools in a Multicultural Society;
4. Any of the following courses that are required in the program of studies: EDPS340 Introduction to Assessment and Evaluation, ECE341 Assessment of the Young Child, SPGN390 Measurement and Diagnosis in Special Education, PHED470 Assessment and Evaluation in Physical Education;
5. Secondary and K-12: the appropriate special methods course in the major or minor field;
6. Elementary: RDNG300 Early Literacy, RDNG310 Literacy Across the Curriculum in the Intermediate Grades and MATH381 The Teaching of Mathematics, K-6;
7. Early childhood education: ECE302 Methods of Integrating Curriculum and Resources in ECE and ECE03 Implementing the Curriculum in ECE;
8. Passing scores on MTTC Basic Skills Test; and
9. All but one course in general education, or major, or 3 minors.

No student shall be assigned to student teaching whose GPA is less than 2.5 in work completed at Eastern Michigan University or less than 2.5 in the teaching major. No student shall be assigned to student teaching who has received a grade lower than C or an unresolved I in any professional education course. Students enrolled in the elementary education program, if taking the three minors option, must attain a combined minimum GPA of 2.5 in the three teaching minors.

Placements

Students who meet all eligibility requirements at the time of application for student teaching will receive priority in placement. Placement during the requested semester **cannot** be guaranteed for those who do not qualify at the time of application.

Students may **not** arrange their own student teaching assignments. Prior arrangements will not be honored by the College of Education Office of Academic Services. Placement could be delayed a full semester in these cases.

A preferred student teaching placement will be accommodated by the College of Education Office of Academic Services if possible. In requesting placement in a particular school district, the student is advised to avoid the following: districts in which a parent or other relative or another person of a significant relationship is employed by the district board of education; districts in which the student has a record of significant prior involvement; and districts that are outside of the list of the student teaching agreements.

The Director of Student Teaching must approve all placements outside the list of Eastern Michigan University cooperating districts. A request for a guest student teaching must be approved by the Office of Records and Teacher Certification and the Director of Student Teaching and must be at an NCATE (National Council for Accreditation of Teacher Education) accredited institution. Guest status at another University requires a 3.0 University GPA.

Students enrolled at another institution in Michigan or in another state who wish to do their student teaching through Eastern Michigan University are advised to consult the Director of Student Teaching on their campus prior to submitting the request to this University. Students granted guest student status for student teaching are expected to have fulfilled all prerequisites required for student teaching at the home institution.

Spring student teaching is available only under very specialized circumstances involving special education teachers.

When students are doing student teaching, they should arrange their daily schedule so that teaching will take precedence over other interests and duties.

Students requesting placements beyond a 40-mile radius from Eastern Michigan may be assessed additional fees.

Courses

All student teaching courses (EDUC490 through EDUC499) provide practical experience in the appropriate classroom under the guidance of

mentor supervising teachers. The student teacher's role as an instructional decision-maker is reflected in planning for teaching, managing the classroom and directing and assessing student learning. Student teachers are given increasing tasks for directing the activities of the classroom, gradually assuming full responsibility.

All student teaching courses have as prerequisites the following requirements, with additional prerequisites given, as applicable, with each course:

Elementary — Completion of EDPS322 or EDPS325; EDPS340, EDPS341 or SPGN390; RDNG300; RDNG310; CURR304; SOFD328 and MATH381 (or appropriate substitutions).

Secondary — Completion of EDPS322 or EDPS325, EDPS340, PHED470 or SPGN390, CURR305, RDNG311, SOFD328 and completion of the special methods course in the major or minor (or appropriate substitutions).

Post-Baccalaureate Certification Programs

Post-baccalaureate certification programs are designed for individuals who have a bachelor's degree or higher who want to obtain a teaching certificate. The number of additional courses will vary for each individual, depending on how many program requirements are met by courses taken as part of the bachelor's (or higher) degree.

Students pursuing this program will complete either elementary or secondary teacher certification requirements. Students wishing to pursue an endorsement in any area of special education, in addition to their teaching certificate, should see the Special Education Master's Program with Teacher Certification (SEM-T) described under the Department of Special Education in the Graduate Catalog. Students wishing to be certified in any of the following areas have requirements that differ from the general programs listed below and must obtain additional information from the College of Education Office of Academic Services: music (vocal and instrumental), physical education, Japanese language and culture, business and marketing education, technology and design education and visual arts education.

Initial contact for all post-baccalaureate students should be with the College of Education Office of Academic Services through post-baccalaureate group advising. Sessions are held regularly throughout the year. For further information inquire in the Office of Academic Services at 206 Porter (734.487.0275). Note that students with a previous degree interested in applying to special education should apply for the SEM-T program instead of the post-baccalaureate program.

Criteria for admission to and continuance in the teacher certification program are as follows:

1. Admission status.

A. Post-baccalaureate students whose overall undergraduate GPA is 2.5 or above must either:

(choose one option from the following)

- i. Apply as a post-baccalaureate teacher certification student through the Office of Admissions in 401 Pierce. This application may be made if all the following conditions are met:
 - a. Have a minimum undergraduate GPA of 2.5. (Applicants with less than a 2.5 should contact the Second Bachelor's Office, 301 Pierce. See below.)
 - b. Official scores from the Michigan Test for Teacher Certification (MTTC) Basic Skills Test are on file at Eastern Michigan University.
 - c. A signed moral turpitude statement is on file at Eastern Michigan University.
 - d. A personal statement explaining your interest in becoming a teacher, including experience working with children and youth, is on file.
 - e. A professional recommendation from a professional source (preferably on letterhead) is on file.
- ii. Enter as an undergraduate "non-degree" student through the Office of Admissions in 401 Pierce and fulfill all admission requirements for the post-baccalaureate teacher

certification program as identified above. The student may then apply for admission to the post-baccalaureate teacher certification program through the Office of Admissions in 401 Pierce.

B. Post-baccalaureate students whose undergraduate GPA is below 2.5 must either:

(choose one option from the following)

- i. Apply to the second bachelor's program and satisfy the GPA requirement by completing 24 credit hours of approved undergraduate work at EMU and earn a GPA of 2.5 or better. Students must submit the list of courses for approval to the College of Education Office of Academic Services during the first semester of course work. Students may not enroll in courses for which admission to the Teacher Certification Program is a prerequisite before the 24 hours are completed. The second bachelor's degree must be posted before the student will be approved for student teaching.
 - ii. Complete a master's degree at an accredited institution with a 3.0 GPA or higher. Students may not enroll in courses for which admission to the teacher certification program is a prerequisite before the master's degree is completed.
2. Demonstrated competence in:
 - A. Speaking effectiveness as determined by successful completion of the required course(s) in speech;
 - B. Reading ability as determined by EMU admission policies, successful completion of general education requirements, and successful completion of the state-mandated basic skills test;
 - C. Written expression as determined by successful completion of all general education requirements, a review of an autobiography submitted as a part of the teacher certification program admission process, and successful completion of the state-mandated basic skills test.
 - D. Mathematical computation as determined by EMU admission policies, completion of general education requirements in science and mathematics with a grade of C or better in each course, and successful completion of the state-mandated basic skills test.
 - E. All professional education courses must be completed with a "C" or higher.
 3. Satisfactory health status, including tuberculosis and speech and hearing screenings.
 4. Social and emotional adjustment: account is taken of standards of conduct expected on Eastern's campus; the degree to which students meet their academic, financial, moral, social and other obligations; and the practice of good citizenship among fellow students.
 5. Freedom from any kind of probation, administrative or academic. While on academic probation, students may not register for, remain in, or receive credit for a professional education course. This includes all methods classes taught in departments outside of the College of Education. Undergraduate students on academic probation may not earn credit for any graduate level on campus or off campus courses (500 level and above).

Program Requirements

The student must:

1. Have a review of previous course work performed by the College of Education Office of Academic Services to determine those requirements already completed, both for the teaching subject major/minor and for professional education. Any needed subject-matter courses must be completed.
2. Successfully complete general education requirements as needed.
3. Successfully complete the required hours of pre-student teaching field experience. Presently a minimum of 100 clock hours of field experience are required, including required FETE courses.
4. Successfully complete professional education course requirements, either elementary or secondary.
5. Be admitted to and successfully complete student teaching.

Retention

If the overall GPA falls below 2.5 the student is not eligible to take courses for which admission to the teacher certification program is a prerequisite.

Exit Criteria

1. Successful completion of all course work on program (designated minimum 2.5 GPA overall, and in majors or three minors).
2. Successful completion of required student teaching. See student teaching section of the catalog.
3. Pass appropriate MTTC subject area test(s).

Curricula

Most courses required for post-baccalaureate certification are undergraduate courses (course numbers under 500). See elementary or secondary post-baccalaureate information.

Department of Leadership and Counseling



Address: 304 Porter Building
Phone: 734.487.0255
E-mail: jtracy@emich.edu
Web site: www.emich.edu/coe/Lead_Coun

See pages 275 and 289 for course descriptions.

Graduate-level Study

Students who wish to enter the educational leadership program or the counseling program are reminded that these are graduate-level programs. The undergraduate courses in these areas provide an introduction to the organization of American education, help students explore career opportunities or provide an opportunity for the students to learn about basic counseling concepts and processes. Rules governing graduate study and complete descriptions of all graduate courses and programs are in the graduate catalog.

The educational leadership program offers graduate work leading to the master's, specialist and doctoral degrees in educational leadership with an emphasis on K-12, student affairs and general administration in higher education.

The counseling program focuses on the professional preparation of school counselors, community counselors and college counselors. This program provides course work leading to completion of the master's degree.

Department of Special Education



Address: 128 Porter Building
Phone: 734.487.3300
E-mail: lynne.rocklage@emich.edu
Web site: www.emich.edu/coe/speced

See page 359 for course descriptions.

The Department of Special Education is among the oldest and most prestigious preparation programs for teachers of students with disabilities in the nation. It is the largest special education program in Michigan and among the most extensive in the country because of its numerous course offerings, experienced faculty, location and affiliations with schools, clinics, institutions, agencies and hospitals in the metropolitan area that surrounds the University.

The department provides courses that prepare students to educate children and adolescents with disabilities. Special education majors earn a State Provisional Elementary or Secondary Teaching Certificate and endorsement to teach students with disabilities as described by the selected major.

The department has unique facilities on campus:

1. A speech and hearing clinic, which provides a complete range of clinical training opportunities for majors in speech-language pathology. Clinical outpatient services are available to college students and to children and adults from the surrounding areas. Clinical speech/language evaluations as well as therapy and complete audiological services are offered, including diagnostic audiology, hearing aid evaluation and selection, aural rehabilitation, preschool evaluation and training and family support. As part of their preparation, majors in speech/language impairment and hearing impairment may be directly involved in the delivery of these services under the supervision of clinical staff.
2. Specialized Technology Laboratory (STL) is a component of the Department of Special Education. The lab houses assistive and instructional technologies appropriate for use with students with disabilities from pre-K-12. The Specialized Technology Lab serves as the teaching environment for the department's preservice and graduate courses in assistive and instructional technology. Additionally, the lab is utilized as a site for inservice presentations and workshops for professionals working with children and adolescents with disabilities, and their families.

Advising

Students are assigned a faculty adviser from the program area selected as a major. The adviser will monitor the student's progress throughout the professional preparation program. It is the student's responsibility to schedule advising appointments each semester prior to or during the University registration period. Faculty advisers post office hours and other times students may schedule appointments. Advisers inform students of special area requirements and procedures.

Faculty Advisers

- Teachers of Students with Emotional Impairment:* Karen Carney, John Palladino, Steve Camron, Gil Stiefel, Laura Zions, Sally Burton-Hoyle
- Teachers of Students with Hearing Impairment:* Linda Polter, Brenda Doster
- Teachers of Students with Cognitive Impairment:* Jackie McGinnis, Kathryn Parker, Phil Smith, Ann Orr, Myung-Sook Koh, Derrick Fries
- Teachers of Students with Physical Impairment and Health Impairment:* Jackie McGinnis
- Teachers of Students with Speech and Language Impairments:* Ronald Hoodin, Bill Cupples, Carole Gorenflo, Lidia Lee, Sarah Ginsberg, Lizbeth Stevens, John Tonkovich
- Teachers of Students with Visual Impairment:* Alicia Li

Admission

Admission requirements to the University, Teacher Education and the Department of Special Education must be met by students intending to major in the programs listed below. However, students should indicate their intention to major in special education upon entrance to the University. Formal application for admission to any of the special education programs of study will be considered only when supported by a recommendation from a faculty member in the Department of Special Education and following acceptance into the Teacher Preparation Program. Departmental faculty determine admissions.

Admission Criteria

(For all programs except speech and language impairment)

1. Completion of 56 credit hours and with an EMU GPA of 2.5 or better.
2. Completion of SPGN251 Education of Students with Exceptionalities and the introductory course in the major area of study with a grade of C or better. These introductory courses are:
 - a. Emotional Impairment: SPEI240 and SPEI301
 - b. Hearing Impairment: (see statement under Teachers of Students with Hearing Impairment)
 - c. Cognitive Impairment: SPCI240 and SPCI350
 - d. Physical Impairment and Health Impairment: SPPI240 and SPPI310

3. Successful completion of the state-mandated basic skills test.
4. Submission of a formal application for admission to the Department of Special Education supported by recommendation from a faculty member in the department.

Admission Criteria (Speech and Language Impairment)

The following criteria must be met before admission to the undergraduate program is granted:

1. Must complete 35 to 45 credit hours with a minimum GPA of 2.5.
2. Successful completion of the state-mandated basic skills test.

Continuance Criteria (All Programs)

Criteria for continuance in a program of study in the Department of Special Education is dependent upon:

1. Maintenance of a 2.5 GPA.
2. Maintenance of a 2.5 GPA in major courses in program of study.
3. Completion of all courses in the major with a grade of C or better. Students will be required to retake any major course in which they earn a grade below C. A major course may be repeated only once.
4. Demonstration of behaviors which indicate stability, maturity, understanding and aptitude as judged necessary for predicted success in the professional field of special education. Such qualitative judgements will be made by the department faculty.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty of a program area to apprise faculty of any extenuating circumstances that may aid faculty in arriving at a fair and equitable decision. The faculty decision will be final and will be transmitted to the student in writing by the department head.

Nothing in this department's procedures will negate University or College of Education action for students on academic, administrative or social probation.

Additional Continuance Criteria (Speech and Language Impairment)

To be allowed to continue in the speech-language pathology program, the student must meet the following criteria:

1. Maintenance of a cumulative overall GPA of 2.5 or better.
2. Maintenance of a cumulative major GPA of 2.5 or better.
3. Demonstration of behaviors which indicate reasonable stability, maturity, understanding and aptitude as judged necessary for predicted success as a speech-language pathologist. Such qualitative judgements will be made by the SLP faculty.
4. Students on academic probation will not be allowed to enroll in major courses until the probation is lifted and their overall GPA is 2.5.
5. Must pass a speech and hearing screening.

Termination from the Department

Students who fail to comply with the continuation criteria stated above will be notified in writing of their termination from the program. Students so notified have the right to appeal such termination through normal University channels. In some cases, a student will be required to meet with program area faculty for discussion of academic performance and continuation in the program.

General Information

Fieldwork in both general and special education is required. Pre-student teaching experiences are required of all candidates pursuing a teaching certificate (see Pre-student Teaching on page 184). Majors in special education are required to complete practica or pre-clinical experiences in addition to those required for teacher certification and should consult with their advisers regarding specific requirements within their designated areas of special education.

Student teaching in either elementary or secondary education must be successfully completed prior to special education student teaching placement. Special education student teaching assignments are arranged and approved by the department upon the recommendation of the faculty within the designated area of special education.

Teacher Certification and Special Education Endorsement

All program majors earn a provisional teaching certificate in elementary or secondary education. Additionally, successful completion of a major in special education results in the achievement of an endorsement as a teacher of students with a given disability. Majors in speech and language impairment choose between teacher certification or a health care specialty.

The professional entry-level credential in speech-language pathology (speech and language impaired) is the master's degree. Students who are awarded the bachelor's degree in speech-language pathology at Eastern Michigan University are expected to apply for admission to graduate degree programs. Those applying to the graduate speech-language pathology program at Eastern Michigan University will compete with applicants from other institutions for admission.

Each of the programs of study in special education meets or exceeds minimum course experience or competency requirements established by the Michigan State Board of Education for that endorsement area. However, meeting Michigan teaching certification and endorsement requirements does not necessarily meet requirements for teacher certification or endorsement in other states. All special education programs of study are recognized and approved for accreditation by the Council for Exceptional Children (CEC).

The programs in Speech-Language Pathology and in Hearing Impairment are also accredited by national professional associations. The American Speech-Language-Hearing Association (ASHA) accredits the department's program in speech-language pathology and in Council on Education of the Deaf (CED) accredits the department's program in hearing impairment.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Cognitive Impairment Major

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation to the Michigan Department of Education for K-12 endorsement as a Teacher of Students with Cognitive Impairment. This program of study meets all requirements of the Council for Exceptional Children. The Michigan Test for Teacher Certification (MTTC) covering this field is #56, "Cognitive Impairment." Students select Secondary or Elementary Teacher Certification. A minor from the respective approved lists is required in either instance and students must pass the certification test related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, #83.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Elementary Teacher Certification and Endorsement in Cognitive Impairment

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core 30 hours
PHED257 Physical Education for the Classroom Teacher (2 hrs)
PSY101 General Psychology (3 hrs)
SPGN251 Education of Students with Exceptionalities (3 hrs)
SPGN271 Speech and Language Development in Children, Adolescents, and Young Adults with Exceptional Learning Needs (2 hrs)
SPGN323 Writing for Professionals in Special Education (3 hrs)
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
†SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
†SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
†SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)

- †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
- †SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teacher's of Students with Cognitive Impairment Endorsement 26 hours

- †EDUC491 Student Teaching (10 hrs)
- SPCI240 Pre-clinical Experiences — Cognitive Impairment (3 hrs)
- SPCI350 Introduction to Cognitive Impairment (3 hrs)
- †SPCI429 Education for Students in Programs for Mild Cognitive Impairment (4 hrs)
- †SPCI483 Education of Students in Programs for Moderate or Severe Cognitive Impairment (4 hrs)
- †SPLI468 Education of Children with Learning Disabilities (2 hrs)

Professional Studies 25 hours

- Pre-admission phase: The Learner and the Community 4 hours**
- EDPS325 Life Span Human Growth and Development (4 hrs)
- Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses)..... 3 hours**
- †SOFD328 Schools in a Multicultural Society (3 hrs)
- Phase II: Curriculum and Assessment (may be taken with Phase I courses)..... 3 hours**
- †CURR304 Curriculum and Methods: Elementary (3 hrs)
- Phase III: Methods and Technology (may be taken with Phase IV courses) 3 hours**
- †MATH381 The Teaching of Mathematics, K-6 (3 hrs)
- Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses)..... 6 hours**
- RDNG300 Early Literacy (3 hrs)
- †RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
- Phase V: Capstone Experience 6 hours**
- †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-30 hours

Select a minor from the approved list of elementary minors for special education majors.

Program Total 141-151 hours

Note:

†Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Cognitive Impairment

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

K-12 Special Education Core 30 hours

- PHED257 Physical Education for the Classroom Teacher (2 hrs)
- PSY101 General Psychology (3 hrs)
- SPGN251 Education of Students with Exceptionalities (3 hrs)
- SPGN271 Speech and Language Development in Children, Adolescents, and Young Adults with Exceptional Learning Needs (2 hrs)
- SPGN323 Writing for Professionals in Special Education (3 hrs)
- †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
- †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
- †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
- †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
- †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
- †SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teacher of Students with Cognitive

Impairment Endorsement 26 hours

- †EDUC491 Student Teaching (10 hrs)
- SPCI240 Pre-clinical Experiences — Cognitive Impairment (3 hrs)
- SPCI350 Introduction to Cognitive Impairment (3 hrs)
- †SPCI429 Education of Students in Programs for Mild Cognitive Impairment (4 hrs)
- †SPCI483 Education of Students in Programs for Moderate or Severe Cognitive Impairment (4 hrs)
- †SPLI468 Education of Children with Learning Disabilities (2 hrs)

Professional Studies 22 hours

- Pre-admission phase: The Learner and the Community 4 hours**
- EDPS325 Life Span Human Growth and Development (4 hrs)
- Phase I: Curriculum and Assessment 6 hours**
- †CURR305 Curriculum and Methods: Secondary (3 hrs)
- †SOFD328 Schools in a Multicultural Society (3 hrs)
- Phase II: Methods and Technology 6 hours**
- †RDNG311 Teaching Reading in the Secondary School (3 hrs)
- Methods Course: Subject Area Minor (3 hrs)
- Phase III: Capstone Experience..... 6 hours**
- †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-24 hours

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 138-142 hours

Note:

†Admission to teacher education required.

Emotional Impairment Major

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation to the Michigan Department of Education for K-12 endorsement as a Teacher of Students with Emotional Impairment. This program of study meets all requirements of the Council for Exceptional Children. The Michigan Test for Teacher Certification (MTTC) covering this field is #59, "Emotional Impairment." Students select Secondary or Elementary Teacher Certification. A minor from the respective approved lists is required in either instance and students must pass the certification test, related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, #83.

Elementary Teacher Certification and Endorsement in Emotional Impairment

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

K-12 Special Education Core 28 hours

- PSY101 Introduction to Psychology (3 hrs)
- SPGN251 Education of Students with Exceptionalities (3 hrs)
- SPGN271 Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs (2 hrs)
- SPGN323 Writing for Professionals in Special Education (3 hrs)
- †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
- †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
- †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
- †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)

†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)	
†SPGN491 Student Teaching Seminar — Special Education (2 hrs)	
Emotional Impairment Concentration	26 hours
†EDUC491 Student Teaching (10 hrs)	
SPEI240 Pre-clinical Experiences — Emotional Impairment (3 hrs)	
†SPEI301 Children and Adolescents with Emotional Impairment (4 hrs)	
†SPEI401 Programming, Methods and Curriculum for Elementary Students with Emotional Impairment (4 hrs)	
†SPEI449 Beyond Behavior (3 hrs)	
†SPLI468 Education of Children with Learning Disabilities (2 hrs)	
Professional Studies	25 hours
Pre-admission phase: The Learner and the Community	4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)	
Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses)	3 hours
†SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Curriculum and Assessment (may be taken with Phase I courses)	3 hours
†CURR304 Curriculum and Methods: Elementary (3 hrs)	
Phase III: Methods and Technology (may be taken with Phase IV courses)	3 hours
†MATH381 The Teaching of Mathematics, K-6 (3 hrs)	
Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses)	6 hours
RDNG300 Early Literacy (3 hrs)	
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)	
Phase V: Capstone Experience	6 hours
†EDUC499 Student Teaching (6 hrs)	
Minor Requirements	20-30 hours
<i>Select a minor from the approved list of elementary minors for special education majors.</i>	
Program Total	139-149 hours

Note:
†Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Emotional Impairment

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
K-12 Special Education Core	28 hours
PSY101 Introduction to Psychology (3 hrs)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
SPGN271 Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs (2 hrs)	
SPGN323 Writing for Professionals in Special Education (3 hrs)	
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)	
†SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)	
†SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)	
†SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)	
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)	
†SPGN491 Student Teaching Seminar — Special Education (2 hrs)	
Emotional Impairment Concentration	26 hours
SPEI240 Pre-clinical Experiences — Emotional Impairment (3 hrs)	

SPEI301 Children and Adolescents with Emotional Impairment (4 hrs)
SPEI401 Programming, Methods and Curriculum for Elementary Students with Emotional Impairment (4 hrs)
†SPEI449 Beyond Behavior (3 hrs)
†SPLI468 Education of Children with Learning Disabilities (2 hrs)
†EDUC491 Student Teaching (10 hrs)

Professional Studies	22 hours
Pre-admission phase: The Learner and the Community	4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)	
Phase I: Curriculum and Assessment	6 hours
†CURR305 Curriculum and Methods: Secondary (3 hrs)	
†SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Methods and Technology	6 hours
†RDNG311 Teaching Reading in the Secondary School (3 hrs)	
Methods Course: Minor Subject Area (3 hrs)	
Phase III: Capstone Experience	6 hours
†EDUC499 Student Teaching (6 hrs)	

Minor Requirements

Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total

136 hours

Note:
†Admission to teacher education required.

Hearing Impairment Major

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation to the Michigan Department of Education for K-12 endorsement as a Teacher of Students with Hearing Impairment. This program of study meets all requirements of the Council for Exceptional Children. The Michigan Test for Teacher Certification (MTTC) covering this field is #62, "Hearing Impairment." Students select Secondary or Elementary Teacher Certification. A minor from the respective approved lists is required in either instance and students must pass the certification test, related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, #83, as well.

Registration for the first course in the hearing impaired sequence (SPHI228) is by permission only. If there is greater demand for enrollment than availability of places in the class, program faculty will determine who receives permission. Grade point average will be the primary criterion. It is essential to see an adviser in hearing impairment in order to begin the program sequence.

All students are considered provisional majors until such time as they successfully complete SPHI391.

The basic philosophy of the program is oral communication; however, students are exposed to manual communication during their course of study.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Certification for Teachers of the Hearing Impaired

The Council on Education of the Deaf issues certificates to individuals who satisfactorily complete training programs at approved teacher preparation centers. Eastern Michigan University has been an approved center for training teachers of the hearing impaired since 1967.

Elementary Teacher Certification and Endorsement in Hearing Impairment

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	

K-12 Special Education Core..... 28 hours
 PHED257 Physical Education for the Classroom Teacher (2 hrs)
 PSY101 General Psychology (3 hrs)
 SPGN251 Education of Students with Exceptionalities (3 hrs)
 SPGN323 Writing for Professionals in Special Education (3 hrs)
 †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
 †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
 †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
 †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
 †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
 †SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teachers of Students with Hearing Impairment Endorsement 36 hours
 †EDUC491 Student Teaching (10 hrs)
 SPHI228 Education of Students with Hearing Impairment (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)
 SPSI337 Language Acquisition (3 hrs)

Professional Studies 25 hours
 Pre-admission phase: The Learner and the Community 4 hours
 EDPS325 Life Span Human Growth and Development (4 hrs)
 Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses)..... 3 hours
 †SOFD328 Schools in a Multicultural Society (3 hrs)
 Phase II: Curriculum and Assessment (may be taken with Phase I courses)..... 3 hours
 †CURR304 Curriculum and Methods: Elementary (3 hrs)
 Phase III: Methods and Technology (may be taken with Phase IV courses) 3 hours
 †MATH381 The Teaching of Mathematics, K-6 (3 hrs)
 Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses)..... 6 hours
 RDNG300 Early Literacy (3 hrs)
 RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
 Phase V: Capstone Experience 6 hours
 †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20 hours
Select a minor from the approved list of elementary minors for special education majors.

Program Total 149 hours

Note:
 †Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Hearing Impairment

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core..... 28 hours
 PHED257 Physical Education for the Classroom Teacher (2 hrs)
 PSY101 General Psychology (3 hrs)
 SPGN251 Education of Students with Exceptionalities (3 hrs)
 SPGN323 Writing for Professionals in Special Education (3 hrs)
 †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
 †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
 †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
 †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
 †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
 †SPGN491 Student Teaching Seminar - Special Education (2 hrs)

Teachers of Students with Hearing Impairment Endorsement 36 hours
 †EDUC491 Student Teaching (10 hrs)
 SPHI228 Education of Students with Hearing Impairment (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)
 SPSI337 Language Acquisition (3 hrs)

Professional Studies 22 hours
 Pre-admission phase: The Learner and the Community 4 hours
 EDPS325 Life Span Human Growth and Development (4 hrs)
 Phase I: Curriculum and Assessment 6 hours
 †CURR305 Curriculum and Methods: Secondary (3 hrs)
 †SOFD328 Schools in a Multicultural Society (3 hrs)
 Phase II: Methods and Technology 6 hours
 †RDNG311 Teaching Reading in the Secondary School (3 hrs)
 Methods Course: Subject Area Minor (3 hrs)
 Phase III: Capstone Experience..... 6 hours
 †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 146-150 hours

Note:
 †Admission to teacher education required.

Speech/Language Pathology Major

Elementary or Secondary Teacher Certification/Health Care Track

The professional entry-level credential in speech-language pathology is the master's degree in the field.

Successful completion of this course of study, in the context of other program requirements, with respect to K-12 teacher licensure, satisfies the undergraduate portion of the requirements for the professional entry-level credential at the master's degree level. This program leads toward, but does not satisfy, the requirements for recommendation to the Michigan Department of Education for K-12 endorsement as a Teacher of Students with Speech and Language Impairment. This program of study meets all requirements

of the Council for Exceptional Children and of the American Speech-Language-Hearing Association. The Michigan Test for Teacher Certification (MTTC) covering this field is #57, "Speech and Language Impairment."

Prospective teachers may select Secondary or Elementary Certification. A minor from the respective approved lists (or the planned program, if Elementary Certification) is required in either instance and students must pass the certification test related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, #83.

Those selecting the health care track have a choice among a different group of minors.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Certificate in Speech Pathology

The American Speech-Language-Hearing Association issues Certificates of Clinical Competence to individuals who present satisfactory evidence of their ability to provide independent clinical services to persons who have disorders of communication (speech, language and/or hearing). An individual who meets these requirements may be awarded a Certificate in Speech Pathology or in Audiology, depending upon the emphasis of his or her preparation. Note: The program at Eastern Michigan prepares individuals to meet the requirements in speech pathology only. Specific requirements may be obtained from the advisers in speech pathology.

Elementary Teacher Certification and Endorsement in Speech/Language Impairment

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core..... 15 hours
PSY101 General Psychology (3 hrs)
SPGN251 Education of Students with Exceptionalities (3 hrs)
SPGN323 Writing for Professionals in Special Education (3 hrs)
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)

Teacher of Students with Speech and Language Impairment Endorsement..... 32 hours
SPHI392 Introduction to Audiology (2 hrs)
SPHI394 Aural Habilitation/Rehabilitation (3 hrs)
SPSI332 Acoustic Phonetics: Speech Science (2 hrs)
SPSI334 Applied Phonetics (2 hrs)
SPSI336 Physiologic Phonetics: Anatomy and Physiology (3 hrs)
SPSI337 Language Acquisition (3 hrs)
SPSI340 Phonological and Articulation Disorders (3 hrs)
SPSI342 Language Disorders in Children (3 hrs)
SPSI343 Clinical Methods in Speech-Language Pathology (2 hrs)
SPSI347 Management of Acquired Neurogenic Communication Disorders (3 hrs)
SPSI452 Voice (3 hrs)
SPSI454 Stuttering (3 hrs)

Professional Studies..... 25 hours
Pre-admission phase: The Learner and the Community..... 4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)
Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses)..... 3 hours
†SOFD328 Schools in a Multicultural Society (3 hrs)
Phase II: Curriculum and Assessment (may be taken with Phase I courses)..... 3 hours
†CURR304 Curriculum and Methods: Elementary (3 hrs)
Phase III: Methods and Technology (may be taken with Phase IV courses)..... 3 hours
†MATH381 The Teaching of Mathematics, K-6 (3 hrs)
Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses)..... 6 hours

RDNG300 Early Literacy (3 hrs)
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Phase V: Capstone Experience 6 hours
†EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-30 hours
Select a minor from the approved list of elementary minors for special education majors.

Program Total..... 132-142 hours

Note:

†Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Speech/Language Impairment

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core..... 16 hours
PSY102 General Psychology (4 hrs)
SPGN251 Education of Students with Exceptionalities (3 hrs)
SPGN323 Writing for Professionals in Special Education (3 hrs)
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)

Teacher of Students with Speech and Language Impairment Endorsement..... 32 hours
SPHI392 Introduction to Audiology (2 hrs)
SPHI394 Aural Habilitation/Rehabilitation (3 hrs)
SPSI332 Acoustic Phonetics: Speech Science (2 hrs)
SPSI334 Applied Phonetics (2 hrs)
SPSI336 Physiologic Phonetics: Anatomy and Physiology (3 hrs)
SPSI337 Language Acquisition (3 hrs)
SPSI340 Phonological and Articulation Disorders (3 hrs)
SPSI342 Language Disorders in Children (3 hrs)
SPSI343 Clinical Methods in Speech — Language Pathology (2 hrs)
SPSI347 Management of Acquired Neurogenic Communication Disorders (3 hrs)
SPSI452 Voice (3 hrs)
SPSI454 Stuttering (3 hrs)

Professional Studies..... 19 hours
Pre-admission phase: The Learner and the Community..... 4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)
Phase I: Curriculum and Assessment..... 6 hours
†CURR305 Curriculum and Methods: Secondary (3 hrs)
†SOFD328 Schools in a Multicultural Society (3 hrs)
Phase II: Methods and Technology 3 hours
†RDNG311 Teaching Reading in the Secondary School (3 hrs)
Phase III: Capstone Experience..... 6 hours
†EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total..... 127-131 hours

Note:

†Admission to teacher education required.

Speech/Language Impairment — Health Care Track

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core	15 hours
PSY101 General Psychology (3 hrs)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
SPGN323 Writing for Professionals in Special Education (3 hrs)	
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)	
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)	
Speech/Language Pathology Requirements	32 hours
SPHI392 Introduction to Audiology (2 hrs)	
SPHI394 Aural Habilitation/Rehabilitation (3 hrs)	
SPSI332 Acoustic Phonetics: Speech Science (2 hrs)	
SPSI334 Applied Phonetics (2 hrs)	
SPSI336 Physiologic Phonetics: Anatomy and Physiology (3 hrs)	
SPSI337 Language Acquisition (3 hrs)	
SPSI340 Phonological and Articulation Disorders (3 hrs)	
SPSI342 Language Disorders in Children (3 hrs)	
SPSI343 Clinical Methods in Speech — Language Pathology (2 hrs)	
SPSI347 Management of Acquired Neurogenic Communication Disorders (3 hrs)	
SPSI452 Voice (3 hrs)	
SPSI454 Stuttering (3 hrs)	
Elective Courses	17 hours
Select courses with adviser approval	
Minor Requirements	20 hours
Program Total	124 hours

Note:

†Admission to teacher education required.

Teacher of Students with Physical and Other Health Impairment Major

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation to the Michigan Department of Education for K-12 endorsement as a Teacher of Students with Physical Impairment and Students with Other Health Impairment. This program of study meets all requirements of the Council for Exceptional Children. The Michigan Test for Teacher Certification (MTTC) covering this field is #58, “Physical Impairment and Other Health Impairment.” Students may select Secondary or Elementary Teacher Certification. A minor from the respective approved lists is required in either instance and students must pass the certification test related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the “Elementary Education” certification test.

Elementary Teacher Certification and Endorsement in Physical Impairment and Other Health Impairment

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
K-12 Special Education Core	30 hours
PHED257 Physical Education for the Classroom Teacher (2 hrs)	
PSY101 General Psychology (3 hrs)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
SPGN271 Speech and Language Development in Children, Adolescents, and Young Adults with Exceptional Learning Needs (2 hrs)	
SPGN323 Writing for Professionals in Special Education (3 hrs)	
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)	

†SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)	
†SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)	
†SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)	
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)	
†SPGN491 Student Teaching Seminar — Special Education (2 hrs)	

Teacher of Students Physical Impairment and Other Health Impairment Endorsement

and Other Health Impairment Endorsement	31 hours
†EDUC491 Student Teaching (10 hrs)	
SPCI350 Introduction to Cognitive Impairment (3 hrs)	
†SPLI468 Education of Children with Learning Disabilities (2 hrs)	
SPPI240 Preclinical Experiences — POHI (3 hrs)	
SPPI310 Developmental Sciences for Teachers of the Physically and Health Impaired (4 hrs)	
SPPI360 Pathology of Physical and Health Impairments (3 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)	

Professional Studies

Professional Studies	25 hours
Pre-admission phase: The Learner and the Community:	4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)	
Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses)	3 hours
†SOFD328 Schools in a Multicultural Society (3 hrs)	
Phase II: Curriculum and Assessment (may be taken with Phase I courses)	3 hours
†CURR304 Curriculum and Methods: Elementary (3 hrs)	
Phase III: Methods and Technology (may be taken with Phase IV courses)	3 hours
†MATH381 The Teaching of Mathematics, K-6 (3 hrs)	
Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses)	6 hours
RDNG300 Early Literacy (3 hrs)	
†RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)	
Phase V: Capstone Experience	6 hours
†EDUC499 Student Teaching (6 hrs)	

Minor Requirements

Minor Requirements	20-24 hours
<i>Select a minor from the approved list of elementary minors for special education majors.</i>	

Program Total

Program Total	146-150 hours
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Note:

†Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Physical Impairment and Health Impairment

General Education Requirements	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
K-12 Special Education Core	30 hours
PHED257 Physical Education for the Classroom Teacher (2 hrs)	
PSY101 General Psychology (3 hrs)	
SPGN251 Education of Students with Exceptionalities (3 hrs)	
SPGN271 Speech and Language Development in Children, Adolescents, and Young Adults with Exceptional Learning Needs (2 hrs)	
SPGN323 Writing for Professionals in Special Education (3 hrs)	

- †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
- †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
- †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
- †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
- †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
- †SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teacher of Students with Physical Impairment and Other Health Impairment Endorsement 31 hours

- †EDUC491 Student Teaching (10 hrs)
- SPCI350 Introduction to Cognitive Impairment (3 hrs)
- †SPLI468 Education of Children with Learning Disabilities (2 hrs)
- SPPI240 Preclinical Experiences — POHI (3 hrs)
- SPPI310 Developmental Sciences for Teachers of the Physically and Health Impaired (4 hrs)
- SPPI360 Pathology of Physical and Health Impairments (3 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)

Professional Studies 22 hours

- Pre-admission phase: The Learner and the Community 4 hours**
- EDPS325 Life Span Human Growth and Development (4 hrs)
- Phase I: Curriculum and Assessment 6 hours**
- †CURR305 Curriculum and Methods: Secondary (3 hrs)
- †SOFD328 Schools in a Multicultural Society (3 hrs)
- Phase II: Methods and Technology 6 hours**
- †RDNG311 Teaching Reading in the Secondary School (3 hrs)
- Methods Course: Subject Area (3 hrs)
- Phase III: Capstone Experience 6 hours**
- †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 143-147 hours

Note:
 †Admission to teacher education required.

Visual Impairment Major

Successful completion of this course of study, in the context of other program requirements, qualifies the student for recommendation to the Michigan Department of Education for K-12 as a Teacher of Students with Visual Impairment. This program of study meets all requirements of the Council for Exceptional Children. The Michigan Test for Teacher Certification (MTTC) covering this field is #61, "Visual Impairment." Students may select Secondary or Elementary Teacher Certification. A minor from the respective approved lists is required in either instance and students must pass the certification test related to the minor in order to be recommended for endorsement in the minor field. In addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, #83.

Students are required to regularly meet with their program area faculty adviser to expedite their program of study.

Elementary Teacher Certification and Endorsement in Visual Impairment

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core 30 hours

- PHED257 Physical Education for the Classroom Teacher (2 hrs)
- PSY101 General Psychology (3 hrs)
- SPGN251 Education of Students with Exceptionalities (3 hrs)
- SPGN271 Speech and Language Development in Children, Adolescent, and Young Adults with Exceptional Learning Needs (2 hrs)
- SPGN323 Writing for Professionals in Special Education (3 hrs)
- †SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
- †SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
- †SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
- †SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
- †SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
- †SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teacher of Students with Visual Impairment Endorsement 31 hours

- †EDUC491 Student Teaching (10 hrs)
- SPVI365 Braille (3 hrs)
- SPVI366 The Eye and Vision — Anatomy and Physiology (2 hrs)
- SPVI368 Mobility Training for Persons with Visual Impairment (2 hrs)
- SPVI369 Community Considerations for Persons with Visual Impairment (3 hrs)
- †SPVI464 Methods of Teaching Children who are Blind (3 hrs)
- †SPVI465 Braille II: Nemeth Code (3 hrs)
- †SPVI467 Education of Children with Visual Impairment (2 hrs)
- †SPVI469 Technology for Persons with Visual Impairment (3 hrs)

Professional Studies 25 hours

- Pre-admission phase: The Learner and the Community 4 hours**
- EDPS325 Life Span Human Growth and Development (4 hrs)
- Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses) 3 hours**
- †SOFD328 Schools in a Multicultural Society (3 hrs)
- Phase II: Curriculum and Assessment (may be taken with Phase I courses) 3 hours**
- †CURR304 Curriculum and Methods: Elementary (3 hrs)
- Phase III: Methods and Technology (may be taken with Phase IV courses) 3 hours**
- †MATH381 The Teaching of Mathematics, K-6 (3 hrs)
- Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses) 6 hours**
- RDNG300 Early Literacy (3 hrs)
- RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
- Phase V: Capstone Experience 6 hours**
- †EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-30 hours
Select a minor from the approved list of elementary minors for special education majors.

Program Total 146-156 hours

Note:
 †Admission to teacher education required.

Secondary Teacher Certification and Endorsement in Visual Impairment

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

K-12 Special Education Core 30 hours
PHED257 Physical Education for the Classroom Teacher (2 hrs)
PSY101 General Psychology (3 hrs)
SPGN251 Education of Students with Exceptionalities (3 hrs)
SPGN271 Speech and Language Development in Children, Adolescents, and Young Adults with Exceptional Learning Needs (2 hrs)
SPGN323 Writing for Professionals in Special Education (3 hrs)
†SPGN390 Measurement and Diagnosis in Special Education (3 hrs)
†SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction (3 hrs)
†SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities (3 hrs)
†SPGN471 Curriculum and Transitions for Secondary Special Education (3 hrs)
†SPGN481 Assistive and Instructional Technology in Special Education (3 hrs)
†SPGN491 Student Teaching Seminar — Special Education (2 hrs)

Teacher of Students with Visual Impairment Endorsement..... 20 hours
SPVI365 Braille (3 hrs)
SPVI366 The Eye and Vision — Anatomy and Physiology (2 hrs)
SPVI368 Mobility Training for Persons with Visual Impairment (2 hrs)
SPVI369 Community Considerations for Persons with Visual Impairment (3 hrs)
†SPVI464 Methods of Teaching Children who are Blind (3 hrs)
†SPVI465 Braille II: Nemeth Code (3 hrs)
†SPVI467 Education of Children with Visual Impairment (2 hrs)
†SPVI469 Technology for Persons with Visual Impairment (2 hrs)

Professional Studies 32 hours
Pre-admission phase: The Learner and the Community 4 hours
EDPS325 Life Span Human Growth and Development (4 hrs)
Phase I: Curriculum and Assessment 6 hours
†CURR305 Curriculum and Methods: Secondary (3 hrs)
†SOFD328 Schools in a Multicultural Society (3 hrs)
Phase II: Methods and Technology 6 hours
†RDNG311 Teaching Reading in the Secondary School (3 hrs)
Methods Course: Subject Area (3 hrs)
Phase III: Capstone Experience..... 16 hours
†EDUC491 Student Teaching (10 hrs)
†EDUC499 Student Teaching (6 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total..... 142-146 hours

Note:

†Admission to teacher education required.

“Planned Program” Minor Available to Special Education Majors seeking Elementary Teacher Certification

Required Courses 22 hours
CURR304 Curriculum and Methods: Elementary (3 hrs)
EDPS325 Life Span Human Growth and Development (4 hrs)
GEOG348 Teaching Social Studies in Elementary Schools (3 hrs)

MATH381 The Teaching of Mathematics, K-6 (3 hrs)
RDNG300 Early Literacy (3 hrs)
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
SOFD328 Schools in a Multicultural Society (3 hrs)

Restricted Elective Courses 8 hours

One course from the following:

BIOL303 Life Science for Elementary Teachers (3 hrs)
ESCI302 Elementary School Science (3 hrs)

Five hours from the following:

ART300 Art Integration for the Elementary Teacher (4 hrs)
CTAR222 Drama and Play in Human Experience (3 hrs)
HLED210 Standard American Red Cross First Aid (2 hrs)
HLED320 Health Education in the Elementary Grades (2 hrs)
LITR207 Introduction to Children's Literature (3 hrs)
MUSC103 Introduction to Music Therapy (2 hrs)
MUSC224 Recreational Music (2 hrs)

Planned Program Total 30 hours

Department of Teacher Education

Address: 313 Porter Building
Phone: 734.487.3260
E-mail: donald.bennion@emich.edu
Web site: www.emich.edu/coe/teach_ed

See pages 283, 286, 289, 290, 296, 354 and 359 for course descriptions.

The Department of Teacher Education provides undergraduate courses in psychological and social foundations of education, curriculum and instruction, reading, educational media, technology and early childhood education. These courses, along with courses in other University departments, comprise the programs for preparing elementary, secondary and K-12 teachers.

The department provides coordination of and a portion of the course work for programs for persons seeking to become elementary teachers, elementary teachers with early childhood endorsement, secondary teachers and teachers of K-12 subjects.

The Department of Teacher Education administers majors and minors in elementary science group, language arts group, social studies group, and reading and minors in arts group, early childhood education and structure of the disciplines.

Elementary education and early childhood education students are required to attend group advising sessions before meeting individually with an adviser. Students should visit the Teacher Education office in 313 Porter to pick up a copy of the group advising schedule as part of the advising process pursuant to the declaration of intent.

Graduate study leads to the master's degree in early childhood education, elementary education, middle level education, secondary education, common learnings in curriculum, reading, social foundations, educational psychology (development and personality, research and measurement concentrations) or educational media and technology. For descriptions of graduate courses and programs, consult the graduate catalog.

The Department of Teacher Education has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall,

487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.S. Elementary Education - Henry Ford Community College
- B.S. Elementary Education - Lansing Community College
- B.S. Elementary Education - Washtenaw Community College
- B.S. Secondary Education - Henry Ford Community College
- B.S. Secondary Education - Washtenaw Community College

Elementary Education Program with an Integrated Science Major

Elementary Teacher Certification

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code DI. The certification test covering this field is #93, "Integrated Science (Elementary)."

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 15-17 hours
 GEOG110 World Regions (3 hrs)
 LITR207 Introduction to Children's Literature (3 hrs)
 MATH108 Mathematics for Elementary Teachers I (3 hrs)
 MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
One course from the following:
 PSY101 General Psychology (3 hrs)
 PSY102 General Psychology (4 hrs)

Major Requirements..... 36 hours
Required Courses.....25-26 hours
 BIOL105 Introductory Biology for Non-majors (4 hrs)
 BIOL303 Life Science for Elementary Teachers (3 hrs)
 CHEM101 Chemistry for Elementary Teachers (3 hrs)
 ESSC202 Earth Science for Elementary Teachers (3 hrs)
 ESSC311 Weather and Climate for Elementary Teachers (3 hrs)
 PHY100 Physics for Elementary Teachers (3 hrs)
 PHY311 Teaching Elementary Physical Science (3 hrs)
One course from the following:
 ASTR203 Exploration of the Universe (3 hrs)
 ASTR205 Principles of Astronomy (4 hrs)

Restricted Elective Courses

- 10-11 hours
Choose ten to eleven hours from the following:
 ASTR204 Astronomical Investigations (1 hr)
 †ASTR377/378/379 Special Topics (1/2/3 hrs)
 †ASTR477/478/479 Special Topics (1/2/3 hrs)
 ASTR590/591/592 Special Topics (1/2/3 hrs)
 BIOL205 Field Biology (4 hrs)
 BIOL324 Global Ecology and the Environment (4 hrs)
 †BIOL377/378/379 Special Topics (1/2/3 hrs)
 †BIOL477/478/479 Special Topics (1/2/3 hrs)
 BIOL590/591/592 Special Topics (1/2/3 hrs)
 BOTN130 Biology of Plants (4 hrs)
 BOTN215 Economic Botany (3 hrs)
 †BOTN377/378/379 Special Topics (1/2/3 hrs)
 †BOTN477/478/479 Special Topics (1/2/3 hrs)
 BOTN590/591/592 Special Topics (1/2/3 hrs)
Either:
 CHEM115/116 Chemistry and Society with lab (4 hrs) or
 CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
 CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
 CHEM121/122 General Chemistry I with lab (4 hrs)

- †CHEM377/378/379 Special Topics (1/2/3 hrs)
- †CHEM477/478/479 Special Topics (1/2/3 hrs)
- CHEM590/591/592 Special Topics (1/2/3 hrs)
- ESSC110 Physical Geology (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC114 National Parks and Monuments (2 hrs)
- ESSC208 Natural Environmental Hazards (3 hrs)
- ESSC229 Rocks of Michigan (2 hrs)
- ESSC307 Essentials of Oceanography for Elementary Teachers (3 hrs)
- ESSC312 Plate Tectonics for Elementary Teachers (3 hrs)
- ESSC315 Water and the Environment for Elementary Teachers (3 hrs)
- †ESSC377/378/379 Special Topics (1/2/3 hrs)
- ESSC414 Teaching Science with Dinosaurs (3 hrs)
- †ESSC477/478/479 Special Topics (1/2/3 hrs)
- ESSC590/591/592 Special Topics (1/2/3 hrs)
- PHY101 Physical Science in the Arts (3 hrs)
- PHY110 Physical Science (4 hrs)
- PHY311 Teaching Elementary Physical Science (3 hrs)
- †PHY377/378/379 Special Topics (1/2/3 hrs)
- †PHY477/478/479 Special Topics (1/2/3 hrs)
- PHY590/591/592 Special Topics (1/2/3 hrs)
- ZOOL140 Biology of Animals (4 hrs)
- †ZOOL377/378/379 Special Topics (1/2/3 hrs)
- †ZOOL477/478/479 Special Topics (1/2/3 hrs)
- ZOOL590/591/592 Special Topics (1/2/3 hrs)

Professional Studies..... 59 hours

Preadmission Phase: The Learner

- and the Community 8 hours
 EDPS322 Human Development and Learning (4 hrs)
 FETE201 Field Experience (1 hr)
 SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Technology, Diversity, and Teaching Environments (may be taken with Phase II courses)..... 11 hours

- HLED320 Health Education in the Elementary Grades (2 hrs)
- RDNG300 Early Literacy (3 hrs)
- SOFD328 Schools in a Multicultural Society (3 hrs)
- TEDU253 Technology Education for Children (3 hrs)

Phase II: Curriculum and Assessment

- (may be taken with Phase I courses) 7 hours
 CURR304 Curriculum and Methods: Elementary (3 hrs)
 EDPS340 Introduction to Assessment and Evaluation (3 hrs)
 FETE301 Field Experience II: Elementary (1 hr)
Students may not proceed to Phase III until Phase II is completed.

Phase III: Methods and Technology

- (may be taken with Phase IV courses)..... 10 hours
 ‡BIOL303 Life Science for Elementary Teachers (3 hrs)
 EDMT330 Instructional Applications of Media and Technology (2 hrs)
 MATH381 The Teaching of Mathematics, K-6 (3 hrs)
 PHED257 Physical Education for the Classroom Teacher (2 hrs)

Phase IV: Literacy, Culture, and the Arts

- (may be taken with Phase III courses)..... 11 hours
 ART300 Art Integration for the Elementary Teacher (4 hrs)
 FETE401 Field Experience III: Elementary (1 hr)
 MUSC320 Elementary Music Education (3 hrs)
 RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Phase V: Capstone Experience..... 12 hours

- EDUC492 Student Teaching (12 hrs)

Program Total..... 150-151 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†Special Topics for Educators (subtitle) are appropriate for this major. These are courses with prefixes of ASTR, ESCI, BIOL, BOTN, ZOOL, CHEM, ESSC, or PHY and with course numbers of 377-379, 477-479 (1-3 hours)

‡This course satisfies both a major requirement and a professional studies requirement.

Elementary Education Program Language Arts Group Major

Elementary Teacher Certification

Successful completion of this major and the certification test #90 (Language Arts) qualifies the student for endorsement in Language Arts, certification code BX. Students planning to take the Michigan State Subject Area Test for certification should take the test when all the course requirements are completed.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 21-22 hours

- CHEM101 Chemistry for Elementary Teachers (3 hrs)
- ESSC202 Earth Science for Elementary Teachers (3 hrs)
- GEOG110 World Regions (3 hrs)
- MATH108 Mathematics for Elementary Teachers I (3 hrs)
- MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
- PHY100 Physics for Elementary Teachers (3 hrs)

One course from the following:

- PSY101 General Psychology (3 hrs)
- PSY102 General Psychology with Lab (4 hrs)

Major Requirements..... 36 hours

Required Courses..... 15 hours

- ENGL307 Writing Process for Elementary Teachers (3 hrs)
- LING201 An Introduction to Linguistics (3 hrs)
- LITR207 Children's Literature (3 hrs)
- RDNG300 Early Literacy (3 hrs)
- RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Restricted Elective Courses..... 21 hours

One course from the following:

- ENGL225 Intermediate English Composition (3 hrs)
- ENGL323 Writing in the Professional World (3 hrs)

One course from the following:

- CTAC225 Listening Skills (3 hrs)
- CTAC227 Interpersonal Skills (3 hrs)
- CTAC274 Intercultural Communication (3 hrs)

One course from the following:

- LITR160 African American Literature (3 hrs)
- LITR161 Native American Literature (3 hrs)
- LITR208 Multicultural Children's Literature (3 hrs)

One course from the following:

- RDNG220 Instructional Uses of Trade Books (3 hrs)
- RDNG350 Integrated Language Arts Instruction (3 hrs)

One course from the following:

- CTAR323 Improvising and Role-Play (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)

One course from the following:

- CTAR222 Drama and Play in the Human Experience (3 hrs)
- CTAR322 Theatre for Children (3 hrs)

One course from the following:

- ENGL450 Critical Evaluation of Children's Literature (3 hrs)

- ENGL451 Controversy in Children's Literature (3 hrs)
- LITR351 World Mythology (3 hrs)
- LITR352 Ballads and Folktales (3 hrs)
- LITR454 Children's Literature: Fiction (3 hrs)

Professional Studies 59 hours

Preadmission Phase: The Learner

and the Community 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses) 11 hours

- HLED320 Health Education in the Elementary Grades (2 hrs)
- RDNG300 Early Literacy (3 hrs)
- SOFD328 Schools in a Multicultural Society (3 hrs)
- TEDU253 Technology Education for Children (3 hrs)

Phase II: Curriculum and Assessment

(may be taken with Phase I courses) 10 hours

- CURR304 Curriculum and Methods: Elementary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE301 Field Experience II: Elementary (1 hr)

Students may not proceed to Phase III until Phase II has been completed.

Phase III: Methods and Technology

(may be taken with Phase IV courses) 7 hours

- BIOL303 Life Science for Elementary Teachers (3 hrs)
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- MATH381 The Teaching of Mathematics, K-6 (3 hrs)
- PHED257 Physical Education for the Classroom Teacher (2 hrs)

Phase IV: Literacy, Culture and the Arts

(may be taken with Phase III courses) 11 hours

- ART300 Art Integration for the Elementary Teacher (4 hrs)
- FETE401 Field Experience III: Elementary (1 hr)
- MUSC320 Elementary Music Education (3 hrs)
- RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Phase V: Capstone Experience..... 12 hours

- EDUC492 Student Teaching (12 hrs)

Program Total 156-157 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Elementary Education Program Mathematics Major for the Elementary Teaching Certificate

Elementary Teacher Certification

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in mathematics, certification code EX. This program of studies meets all requirements of the National Council of Teachers of Mathematics. The Michigan Test for Teacher Certification (MTTC) covering this field is #89, "Mathematics (Elementary)." At least nine hours in the major must be taken at Eastern Michigan University.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 18-19 hours
 CHEM101 Chemistry for Elementary Teachers (3 hrs)
 ESSC202 Earth Science for Elementary Teachers (3 hrs)
 GEOG110 World Regions (3 hrs)
 LITR207 Introduction to Children's Literature (3 hrs)
 PHY100 Physics for Elementary Teachers (3 hrs)
 PSY101/102 General Psychology (3/4 hrs)

Major Requirements..... 30 hours
Required Courses..... 22 hours
 MATH108 Mathematics for Elementary Teachers I (3 hrs)
 MATH110E Mathematical Reasoning: Applications for
 Elementary School Teachers (3 hrs)
 MATH120 Calculus I (4 hrs)
 MATH210 Algebra for Elementary Teachers (3 hrs)
 MATH240 Geometry for Elementary Teachers (3 hrs)
 MATH301 Advanced Topics in Elementary Mathematics (3 hrs)
 MATH403 Current Research in Elementary School
 Mathematics (3 hrs)

Restricted Elective Courses..... 8 hours
*Eight hours from the following, with at least three hours at
 the 300- or 400-level:*

MATH110 Mathematical Reasoning (3 hrs)
 MATH118 Linear Models and Probability (3 hrs)
 MATH122 Elementary Linear Algebra (3 hrs)
 MATH170 Elementary Statistics (3 hrs)
 MATH382 Technology in the Mathematics
 Classroom (3 hrs)
 MATH401 Mathematics and its History for Elementary
 Teachers (3 hrs)
 Other mathematics courses as approved by the advising
 coordinator for elementary mathematics education

Professional Studies 59 hours
**Pre-Admission Phase: The Learner
 and the Community** 8 hours

EDPS322 Human Development and Learning (4 hrs)
 FETE201 Field Experience I (1 hr)
 SPGN251 Education of Students with Exceptionalities (3 hrs)

*The following courses require formal admission to the teacher
 education program:*

**Phase I: Technology, Diversity and Teaching Environments
 (may be taken with Phase II courses)** 8 hours
 HLED320 Health Education in the Elementary
 Grades (2 hrs)
 SOFD328 Schools in a Multicultural Society (3 hrs)
 TEDU253 Technology Education for Children (3 hrs)

**Phase II: Curriculum and Assessment
 (may be taken with Phase I courses)** 10 hours
 CURR304 Curriculum and Methods: Elementary (3 hrs)
 EDPS340 Introduction to Assessment and
 Evaluation (3 hrs)

FETE301 Field Experience II: Elementary (1 hr)
 RDNG300 Early Literacy (3 hrs)
**Phase III: Methods and Technology
 (may be taken with Phase IV courses)** 10 hours

BIOL303 Life Science for Elementary Teachers (3 hrs)
 EDMT330 Instructional Applications of Media
 and Technology (2 hrs)
 MATH381 The Teaching of Mathematics, K-6 (3 hrs)
 PHED257 Physical Education for the Classroom
 Teacher (2 hrs)

**Phase IV: Literacy, Culture and the Arts
 (may be taken with Phase III courses)** 11 hours

ART300 Art Integration for the Elementary
 Teacher (4 hrs)
 FETE401 Field Experience III: Elementary (1 hr)
 MUSC320 Elementary Music Education (3 hrs)
 RDNG310 Literacy Across the Curriculum in the
 Intermediate Grades (3 hrs)

Phase V: Capstone Experience 12 hours
 EDUC492 Student Teaching (12 hrs)

Program Total..... 147-148 hours

Note:

*Each student must choose a writing intensive course as part of major completion
 requirements. Consult your adviser for course options.*

Elementary Education Program Social Studies Group Major

Elementary Teacher Certification

Recommendation for endorsement in social studies (certification code RX)
 requires a group major of 36 credit hours covering economics, geography,
 history and political science. The Michigan Test for Teacher Certification
 (MTTC) covering social studies is #84, "Social Studies."

General Education Requirements..... 40 hours
*See page 46 for further information regarding General Education
 requirements.*

Additional Requirements 21-22 hours

CHEM101 Chemistry for Elementary Teachers (3 hrs)
 ESSC202 Earth Science for Elementary Teachers (3 hrs)
 LITR207 Introduction to Children's Literature (3 hrs)
 MATH108 Mathematics for Elementary Teachers I (3 hrs)
 MATH110E Mathematical Reasoning: Applications for Elementary
 School Teachers (3 hrs)
 PHY100 Physics for Elementary Teachers (3 hrs)

One course from the following:

PSY101 General Psychology (3 hrs)
 PSY102 General Psychology (4 hrs)

Major Requirements..... 36 hours

GEOG107 Introduction to Geography (3 hrs)
 GEOG110 World Regions (3 hrs)
 GEOG320 Geography of the United States and Canada (3 hrs)
 HIST123 The United States to 1877 (3 hrs)
 HIST124 The United States, 1877 to the Present (3 hrs)
 PLSC112/113 American Government (3/3 hrs)
 PLSC301 The American Legal System (3 hrs)

One course from the following:

HIST106 Asian and African Civilizations (3 hrs)
 HIST109 World History to 1500 (3 hrs)
 HIST110 World History since 1500 (3 hrs)

One course from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)
 SOCL105 Introductory Sociology (3 hrs)

One course from the following:

ECON100 Introduction to Economic Problems and
 Policies (3 hrs)
 ECON201 Principles of Macroeconomics (3 hrs)

One course from the following:

ECON300 Contemporary Economic Issues (3 hrs)
 ECON321 Minority Workers in the Labor Market (3 hrs)
 ECON328/WGST328 Economics of Women (3 hrs)
 ECON375 Economic History of the United States (3 hrs)
 ECON385 Economic Development (3 hrs)

One course from the following:

HIST305 Native American History (3 hrs)
 HIST315 History of Black Americans (3 hrs)
 HIST336/WGST336 History of Women in the United States
 and Great Britain, 1800 to the Present (3 hrs)
 HIST341 The Middle East, 1798 to the Present (3 hrs)
 HIST342 North Africa, 1798 to the Present (3 hrs)
 HIST348 20th Century Africa (3 hrs)
 HIST356 Latin America: National Period (3 hrs)
 HIST375 Modern India (3 hrs)

Professional Studies 59 hours

Preadmission Phase: The Learner and the Community 8 hours
EDPS322 Human Development and Learning (4 hrs)
FETE201 Field Experience (1 hr)
SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses) 11 hours
HLED320 Health Education in the Elementary Grades (2 hrs)
RDNG300 Early Literacy (3 hrs)
SOFD328 Schools in a Multicultural Society (3 hrs)
TEDU253 Technology Education for Children (3 hrs)

Phase II: Curriculum and Assessment (may be taken with Phase I courses) 7 hours
CURR304 Curriculum and Methods: Elementary (3 hrs)
EDPS340 Introduction to Assessment and Evaluation (3 hrs)
FETE301 Field Experience II: Elementary (1 hr)
Students may not proceed to Phase III until Phase II has been completed.

Phase III: Methods and Technology (may be taken with Phase IV courses) 10 hours
BIOL303 Life Science for Elementary Teachers (3 hrs)
EDMT330 Instructional Applications of Media and Technology (2 hrs)
MATH381 The Teaching of Mathematics, K-6 (3 hrs)
PHED257 Physical Education for the Classroom Teacher (2 hrs)

Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses) 11 hours
ART300 Art Integration for the Elementary Teacher (4 hrs)
FETE401 Field Experience III: Elementary (1 hr)
MUSC320 Elementary Music Education (3 hrs)
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Phase V: Capstone Experience 12 hours
EDUC492 Student Teaching (12 hrs)

Program Total 156-157 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Reading Major

Successful completion of this major and the certification test qualifies the student for endorsement in Reading, certification code BR. Students planning to take the Michigan State Subject Area Test (Test #05) for certification should take the test when all the course requirements are completed.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 24-26 hours
CHEM101 Chemistry for Elementary Teachers (3 hrs)
ESSC202 Earth Science for Elementary Teachers (3 hrs)
GEOG110 World Regions (3 hrs)
LITR207 Introduction to Children's Literature (3 hrs)
MATH108 Mathematics for Elementary Teachers I (3 hrs)
MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
PHY100 Physics for Elementary Teachers (3 hrs)

One course from the following:

PSY101 General Psychology (3 hrs)
PSY102 General Psychology (4 hrs)

Major Requirements 30 hours

Required Courses 24 hours
FETE401 Field Experience III: Elementary (1 hr)
RDGN210 Issues and Trends in Literacy Education (2 hrs)
RDNG230 Word Study in the Reading Program (3 hrs)
RDNG240 Reading and Writing Connections in the Elementary Grades (3 hrs)
RDNG300 Early Literacy (3 hrs)
RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
RDNG330 Reading and the Culturally and Linguistically Diverse Learner (3 hrs)
RDNG340 Literacy Assessment in the Elementary Schools (3 hrs)
RDNG400 Program Development for Struggling Readers (3 hrs)

Restricted Elective Courses 6 hours

One course from the following:

CTAC225 Listening Behavior (3 hrs)
RDNG350 Integrated Language Arts Instruction (3 hrs)

One course from the following:

LITR207 Introduction to Children's Literature (3 hrs)
RDNG220 Instructional Uses of Tradebooks (3 hrs)

Professional Studies 59 hours

Preadmission Phase: The Learner and the Community 8 hours
EDPS322 Human Development and Learning (4 hrs)
FETE201 Field Experience (1 hr)
SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Technology, Diversity and Teaching Environments (may be taken with Phase II courses) 11 hours
HLED320 Health Education in the Elementary Grades (2 hrs)
RDNG300 Early Literacy (3 hrs)
SOFD328 Schools in a Multicultural Society (3 hrs)
TEDU253 Technology Education for Children (3 hrs)

Phase II: Curriculum and Assessment (may be taken with Phase I courses) 7 hours
CURR304 Curriculum and Methods: Elementary (3 hrs)
EDPS340 Introduction to Assessment and Evaluation (3 hrs)
FETE301 Field Experience II: Elementary (1 hr)
Students may not proceed to Phase III until Phase II is completed.

Phase III: Methods and Technology (may be taken with Phase IV courses) 10 hours
BIOL303 Life Science for Elementary Teachers (3 hrs)
EDMT330 Instructional Applications of Media and Technology (2 hrs)
MATH381 The Teaching of Mathematics, K-6 (3 hrs)
PHED257 Physical Education for the Classroom Teacher (2 hrs)

Phase IV: Literacy, Culture and the Arts (may be taken with Phase III courses) 11 hours
ART300 Art Integration for the Elementary Teacher (4 hrs)
FETE401 Field Experience III: Elementary (1 hr)
MUSC320 Elementary Music Education (3 hrs)
†RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Phase V: Capstone Experience 12 hours
EDUC492 Student Teaching (12 hrs)

University Elective Courses 0 hours

Program Total..... 153-154 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†RDNG310 satisfies both a major requirement and a professional studies requirement.

Elementary Education Program with Three Minors

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 24-25 hours

- CHEM101 Chemistry for Elementary Teachers (3 hrs)
- ESSC202 Earth Science for Elementary Teachers (3 hrs)
- GEOG110 World Regions (3 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)
- MATH108 Math for Elementary Teachers I (3 hrs)
- MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
- PHY100 Physics for Elementary Teachers (3 hrs)

One course from the following:

- PSY101 General Psychology (3 hrs)
- PSY102 General Psychology (4 hrs)

Major Requirements..... 60-72 hours

Select three teaching minors, structure of the disciplines minor is built into the Professional Education curriculum and can serve as one of the three minors selected.

Professional Studies 59 hours

Pre-Admission Phase: The Learner and the Community

..... 8 hours

- EDPS322 Human Development and Learning (4 hrs)
- FETE201 Field Experience I (1 hr)
- SPGN251 Education of Students with Exceptionalities (3 hrs)

The following courses require formal admission to the teacher education program:

Phase I: Technology, Diversity and Teaching Environments

(may be taken with Phase II courses)..... 11 hours

- HLED320 Health Education in the Elementary Grades (2 hrs)
- RDNG300 Early Literacy (3 hrs)
- SOFD328 Schools in a Multicultural Society (3 hrs)
- TEDU253 Technology Education for Children (3 hrs)

Phase II: Curriculum and Assessment

(may be taken with Phase I courses)..... 7 hours

- CURR304 Curriculum and Methods: Elementary (3 hrs)
- EDPS340 Introduction to Assessment and Evaluation (3 hrs)
- FETE301 Field Experience II: Elementary (1 hr)

Students may not proceed to Phase III until Phase II is completed.

Phase III: Methods and Technology

(may be taken with Phase IV courses)..... 10 hours

- BIOL303 Life Science for Elementary Teachers (3 hrs)
- EDMT330 Instructional Applications of Media and Technology (2 hrs)
- MATH381 Teaching of Mathematics K-6 (3 hrs)
- PHED257 Physical Education for the Classroom Teacher (2 hrs)

Phase IV: Literacy, Culture and the Arts

(may be taken with Phase III courses)..... 11 hours

- ART300 Art Integration for the Elementary Teacher (4 hrs)
- FETE401 Field Experience II: Elementary (1 hr)

MUSC320 Elementary Music Education (3 hrs)

RDNG310 Literacy Across the Curriculum in the

Intermediate Grades (3 hrs)

Phase V: Capstone Experience..... 12 hours

EDUC492 Student Teaching (12 hrs)

Program Total..... 183-196 hours

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Elementary Education Program with an Early Childhood Education Minor

Elementary Teacher Certification

Students seeking a minor in ECE need to attend early childhood group advising sessions early in their program. In the Professional Studies sequence, ECE minors are exempted from the following EDPS340 Introduction to Assessment and Evaluation, MUSC320 Elementary Music Education, TEDU253 Technology Education for Children and HLED320 Health Education in the Elementary Grades.

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Elementary Provisional Certificate, which is valid for teaching all subjects K-5 for teaching in self-contained classrooms in grades six to eight, and for teaching in one's major or minor subject areas of concentration in grades six to eight. In addition, the student is qualified for recommendation for endorsement in early childhood, certification code ZA. Depending on the major selected (or two other minors selected), the individual will be eligible for an additional endorsement(s). Students with an early childhood minor may not select a structure of disciplines minor. The Michigan Test for Teacher Certification (MTTC) for this field are #82, "Early Childhood," #83, "Elementary," and those needed for subject area endorsements.

Elementary education and early childhood education students are required to attend a group advising session and then an open advising session before being assigned an adviser.

Required Courses..... 17 hours

- ECE214 The Developing Child in ECE (3 hrs)
- ECE215 The Developing Professional in ECE (2 hrs)
- ECE302 Methods of Integrating Curriculum and Resources in ECE (3 hrs)
- ECE303 Implementing the Curriculum in ECE (2 hrs)
- EDPS341 Assessment of the Young Child (3 hrs)
- EDUC495 Student Teaching (4 hrs)

Restricted Elective Courses..... 9 hours

Three courses from the following:

- ECE307 Young Children in Peril: Educational Implications (3 hrs)
- ECE314 Infants and Toddlers in ECE (3 hrs)
- ECE318 Play and Creativity in ECE (3 hrs)
- PHED381 Motor Development of the Young Child (3 hrs)

Minor Total..... 26 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Arts Group Minor

Elementary and Special Education-Elementary Teacher Certification (not available with Art Minor, Music Education Minor, or with Technology and Design Minor)

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in

fine arts, certification code OX. The Michigan Test for Teacher Certification (MTTC) covering this field is #53, "Fine Arts."

Students are advised that some of the courses listed have prerequisites that are not necessarily met by other courses in the program. In order to avoid taking excess hours, students should select from courses for which the prerequisites have been met.

Required Courses 15 hours

- ART101 Introduction to Art (3 hrs)
- ART300 Art Integration for the Elementary Teacher (4 hrs)
- MUSC320 Elementary Music Education (3 hrs)
- TEDU253 Technology Education for Children (3 hrs)
- TEDU354 Experiences in Technology for Children (2 hrs)

Restricted Elective Courses 8 hours

Eight hours from the following:

- ART100 Art Appreciation (3 hrs)
- ART107 Art History Survey I (3 hrs)
- ART108 Art History Survey II (3 hrs)
- ART122 Two-Dimensional Design (3 hrs)
- ART123 Drawing I (3 hrs)
- ART124 Drawing II (3 hrs)
- ART131 Three-Dimensional Design (3 hrs)
- ART201 Introduction to Graphic Design I (3 hrs)
- ART210 Life Drawing (3 hrs)
- ART215 History of 19th Century Art (3 hrs)
- ART235 Textiles (3 hrs)
- ART304 Beginning Photographic Imagery (3 hrs)
- ART307 Ceramics (3 hrs)
- ART310 Sculpture (3 hrs)
- ART320 Jewelry (3 hrs)
- ART341 History of Renaissance Art (3 hrs)
- ART421 History of Asian Art (3 hrs)
- ART425 Arts of Africa (3 hrs)
- ART426 Medieval Art History (3 hrs)
- ART427 Baroque Art (3 hrs)
- ART429 History of American Architecture (3 hrs)
- ART430 Meso-American Art (3 hrs)
- ART436 Women in Art (3 hrs)
- CMT121 Graphic Communication (3 hrs)
- CTAA168/268/368/468 Interpretation (1/1/1/1 hr)
- CTAO210 Interpretative Reading (3 hrs)
- †CTAR106 Introduction to the Performing Arts (3 hrs)
- CTAR150 Introduction to Theatre (3 hrs)
- CTAR151 African American Theatre: An Introduction (3 hrs)
- CTAR153 Technical Theatre: Costume and Makeup (2 hrs)
- CTAR222 Drama and Play in Human Experience (3 hrs)
- CTAR251 African American Theatre: Creative Problems (3 hrs)
- CTAR322 Theatre for the Young (3 hrs)
- CTAR323 Improvising and Role-Play (3 hrs)
- CTAR324 Oral Interpretation of Literature for the Young (3 hrs)
- CTAR497/498/499 Independent Study (1/2/3 hrs)
- MUSC106 Introduction to the Performing Arts (3 hrs) (Not open to those with credit in CTAR106)
- MUSC107 Music Appreciation (2 hrs)
- MUSC131 University Choir (1 hr)
- MUSC134 University Women's Chorus (1 hr)
- MUSC135 University Men's Chorus (1 hr)
- MUSC151 Class Piano (2 hrs)
- MUSC152 Class Piano (2 hrs)
- MUSC224 Recreational Music (2 hrs)
- MUSC232 Voice Class (1 hr)
- MUSC248 Orchestra (1 hr)
- MUSC249 Band (1 hr)
- MUSC274 Functional Guitar (2 hrs)
- TEDU103 Structures and Design in Technology (3 hrs)
- TEDU106 Processing Technology (3 hrs)
- TEDU114 Information and Control Technology (3 hrs)
- TEDU118 Energy Technology (3 hrs)
- TEDU152 Arts and Crafts (3 hrs)

Minor Total..... 23 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

†Not open to those with credit in MUSC106

Integrated Elementary Science Minor

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this major, in the context of other program requirements, qualifies the student for recommendation for endorsement in science, certification code DI. The certification test covering this field is #93, "Integrated Science (Elementary)."

Required Courses 21-23 hours

- BIOL303 Life Science for Elementary Teachers (3 hrs)
- CHEM101 Chemistry for Elementary Teachers (3 hrs)
- †ESSC202 Earth Science for Elementary Teachers (3 hrs)
- PHY100 Physics for Elementary Teachers (3 hrs)

One course from the following:

- ASTR203 Exploration of the Universe (3 hrs)
- ASTR205 Principles of Astronomy (4 hrs)

Two courses from the following:

- PHY311 Teaching Elementary Physical Science (3 hrs)
- ESSC311 Weather and Climate for Elementary Teachers (3 hrs)
- BIOL105 Biology and the Human Species (4 hrs)

Restricted Elective Courses 1-3 hours

Choose one to three hours from the following:

- ASTR204 Astronomical Investigations (1 hr)
- ASTR377/378/379 Special Topics (1/2/3 hrs)
- ASTR477/478/479 Special Topics (1/2/3 hrs)
- ASTR590/591/592 Special Topics (1/2/3 hrs)
- BIOL105 Introductory Biology for Non-majors (4 hrs)
- BIOL205 Field Biology (4 hrs)
- BIOL324 Global Ecology and the Environment (4 hrs)
- BIOL377/378/379 Special Topics (1/2/3 hrs)
- BIOL477/478/479 Special Topics (1/2/3 hrs)
- BIOL590/591/592 Special Topics (1/2/3 hrs)
- BOTN130 Biology of Plants (4 hrs)
- BOTN215 Economic Botany (3 hrs)
- BOTN377/378/379 Special Topics (1/2/3 hrs)
- BOTN477/478/479 Special Topics (1/2/3 hrs)
- BOTN590/591/592 Special Topics (1/2/3 hrs)
- CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
- CHEM121/122 General Chemistry I with lab (4 hrs)
- CHEM377/378/379 Special Topics (1/2/3 hrs)
- CHEM477/478/479 Special Topics (1/2/3 hrs)
- CHEM590/591/592 Special Topics (1/2/3 hrs)

Either:

- CHEM115/116 Chemistry and Society with lab (4 hrs) or
- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- ESSC110 Physical Geology (4 hrs)
- ESSC111 The Earth System Through Time (4 hrs)
- ESSC114 National Parks and Monuments (2 hrs)
- ESSC208 Natural Environmental Hazards (3 hrs)
- ESSC229 Rocks of Michigan (2 hrs)
- ESSC307 Essentials of Oceanography for Elementary Teachers (3 hrs)
- ESSC311 Weather and Climate for Elementary Teachers (3 hrs)
- ESSC312 Plate Tectonics for Elementary Teachers (3 hrs)
- ESSC315 Water and the Environment for Elementary Teachers (3 hrs)
- ESSC377/378/379 Special Topics (1/2/3 hrs)
- ESSC414 Teaching Science with Dinosaurs (3 hrs)
- ESSC477/478/479 Special Topics (1/2/3 hrs)
- ESSC590/591/592 Special Topics (1/2/3 hrs)
- PHY101 Physical Science in the Arts (3 hrs)

PHY110 Physical Science (4 hrs)
 PHY311 Teaching Elementary Physical Science (3 hrs)
 PHY377/378/379 Special Topics (1/2/3 hrs)
 PHY477/478/479 Special Topics (1/2/3 hrs)
 PHY590/591/592 Special Topics (1/2/3 hrs)
 ZOOL140 Biology of Animals (4 hrs)
 ZOOL377/378/379 Special Topics (1/2/3 hrs)
 ZOOL477/478/479 Special Topics (1/2/3 hrs)
 ZOOL590/591/592 Special Topics (1/2/3 hrs)

Minor Total..... 24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.
 †Do not take ESSC108. For transfer students with ESSC108 credit completed:
 ESSC108 automatically substitutes for ESSC202 and fulfills the requirement.
 Students cannot use ESSC108 as an elective if they also have ESSC202.

Language Arts Group Minor

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this minor and the certification test #90 (language arts) qualifies the student for endorsement in language Arts, certification code BX. Students planning to take the Michigan State Subject Area Test for certification should take the test when all the course requirements are completed.

Required Courses..... 12 hours
 ENGL307 Writing Process for Elementary Teachers (3 hrs)
 LING201 An Introduction to Linguistics (3 hrs)
 RDNG300 Early Literacy (3 hrs)
 RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

Restricted Elective Courses..... 12 hours
One course from the following:
 CTAC225 Listening Skills (3 hrs)
 CTAC227 Interpersonal Skills (3 hrs)
 CTAC274 Intercultural Communication (3 hrs)
One course from the following:
 LITR160 African American Literature (3 hrs)
 LITR161 Native American Literature (3 hrs)
 LITR208 Multicultural Children's Literature (3 hrs)
One course from the following:
 LITR207 Children's Literature (3 hrs)
 RDNG220 Instructional Uses of Trade Books (3 hrs)
One course from the following:
 CTAR222 Drama and Play in the Human Experience (3 hrs)
 CTAR322 Theatre for Children (3 hrs)
 CTAR323 Improvising and Role-Play (3 hrs)
 CTAR324 Oral Interpretation of Literature for the Young (3 hrs)

Minor Total..... 24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Reading Minor (Elementary)

Elementary Certification

Successful completion of this minor and the certification test qualifies the student for endorsement in reading, certification code BR. Students planning to take the Michigan State Subject Area Test for certification should take the test when all the course requirements are completed.

Required Courses..... 18 hours
 FETE401 Field Experience III: Elementary (1 hr)

RDNG210 Issues and Trends in Literacy Education (2 hrs)
 RDNG230 Word Study in the Reading Program (3 hrs)
 RDNG240 Reading and Writing Connections in the Elementary Grades (3 hrs)
 RDNG300 Early Literacy (3 hrs)
 RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)
 RDNG340 Literacy Assessment in the Elementary Schools (3 hrs)
 Restricted Elective Course..... 3 hours
One course from the following:
 LITR207 Introduction to Children's Literature (3 hrs)
 RDNG220 Instructional Uses of Tradebooks (3 hrs)

Minor Total..... 21 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Social Studies Group Minor (Elementary)

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in social studies, certification code RX. The Michigan Test #05 (Reading) for Teacher Certification (MTTC) covering this field is #84, "Social Studies."

Required Courses..... 24 hours
 PLSC112/113 American Government (3 hrs)
 PLSC301 The American Legal System (3 hrs)
 GEOG107 Introduction to Geography (3 hrs)
 GEOG110 World Regions (3 hrs)
One course from the following:
 ECON100 Introduction to Economic Problems and Policies (3 hrs)
 ECON201 Principles of Macroeconomics (3 hrs)
One course from the following:
 ECON300 Contemporary Economic Issues (3 hrs)
 ECON321 Minority Workers in the Labor Market (3 hrs)
 ECON328 Economics of Women (3 hrs)
 ECON375 Economic History of the United States (3 hrs)
 ECON385 Economic Development (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)
One course from the following:
 HIST106 Asian and African Civilizations (3 hrs)
 HIST109 World History to 1500 (3 hrs)
 HIST110 World History since 1500 (3 hrs)

Minor Total..... 24 hours

Note:
 All minors must have at least six hours of course work at the 300-level or above.

Structure of the Disciplines Minor

Elementary Certification

Note:
 Effective with students who enter under (or change to) the 1998 and later catalogs, the program for prospective elementary teachers will include the structure of the disciplines minor, either in connection with one of the majors from the approved list of majors for elementary or in connection with two additional minors.

The structure of the disciplines minor is a liberal arts minor that varies in credit numbers depending on the major or minors with which it is selected.

To select a structure of the disciplines minor, a student shall select either option I or option II below. This applies only to elementary education students who do not have an early childhood minor (ECE) (early childhood students must see an early childhood adviser for information on majors and minors).

Option I

Select a major from the recommended majors listed below and choose the structure of the disciplines as the corresponding minor:

- Integrated Science
- Language Arts Group
- Mathematics for Elementary Teaching Certification
- Social Studies (for Elementary) Group
- Reading

Option II

Select three minors from below:

a. You must choose at least one of the following:

- Integrated Science
- Language Arts Group Minor
- Math for Elementary Teaching Certification Minor
- Social Studies (for Elementary) Group Minor
- Reading Minor

b. A second minor from list (a) above or from among the following:

- Arts Group Minor
- Elementary Music Education Minor (Vocal or Instrumental)
- French Language Minor (Elementary Education)
- German Language Minor (Elementary Education)
- Spanish Language Minor (Elementary Education)
- Health Minor
- Technology and Design Education Minor

c. The structure of the disciplines minor is the third choice in option II.

All of the following courses are required for prospective elementary teachers. Only those that are not applied to either (a) the student's major or (b) the student's other two minors may be applied to the structure of the disciplines minor. A number of these courses also satisfy a general education requirement. The structure of the disciplines minor does not lead to subject-area certification.

- ART300 Art Integration for the Elementary Teacher (4 hrs)
- BIOL303 Life Science for Elementary Teachers (3 hrs)
- CHEM101 Chemistry for Elementary Teachers (3 hrs)
- CTAS121/124 Fundamentals of Speech (2/3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- ESSC202 Earth Science for Elementary Teachers (3 hrs)
- GEOG110 World Regions (3 hrs)
- HLED320 Health Education in the Elementary Grades (2 hrs)
- LITR207 Introduction to Children's Literature (3 hrs)
- MATH108 Mathematics for Elementary Teachers I (3 hrs)
- MATH110E Mathematical Reasoning: Applications for Elementary School Teachers (3 hrs)
- MATH381 The Teaching of Mathematics, K-6 (3 hrs)
- MUSC320 Elementary Music Education (3 hrs)
- PHED257 Physical Education for the Classroom Teacher (2 hrs)
- PHY100 Physics for Elementary Teachers (3 hrs)
- PLSC112/113 American Government (3 hrs)
- PSY101/102 General Psychology (3/4 hrs)
- TEDU253 Technology Education for Children (3 hrs)
- Any three-credit history course except HIST100 (3 hrs)

Minor Total..... 24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Post-Baccalaureate Elementary and Secondary Teacher Certification Programs

Students pursuing this program will complete either elementary or secondary teacher certification requirements. Students wishing to pursue an endorsement in any area of special education, in addition to their teaching certificate, should see the master's teacher certification and endorsement in special education program described under the Department of Special Education. Students wishing to be certified in any of the following areas have requirements that differ from the general programs listed below and must obtain additional information from the College of Education Office of Academic Services: art, music (vocal and instrumental), physical education, Japanese, business, management marketing and technology, technology education (technology and design or industrial technology), or industrial-vocational education. General procedures for obtaining post-baccalaureate certification can be found under the College of Education.

Initial contact for all post-baccalaureate students should be with the College of Education Office of Academic Services.

Admission Requirements

1. Minimum undergraduate grade point average (GPA) of 2.5. Applicants with less than a 2.5 GPA should contact the Second Bachelor's Office, 301 Pierce.
2. Official score from the Michigan Test for Teacher Certification (MTTC) on file at Eastern Michigan University.
3. Signed moral turpitude statement.
4. Personal statement.
5. Compliance with all other admissions requirements.

Program Requirements

The student must:

1. Have a review of previous course work, performed by the College of Education Office of Academic Services, to determine those requirements already completed, both for the teaching subject major/minor and for certification.
2. Successfully complete general studies requirements as needed.
3. Successfully complete major/minor requirements for elementary or secondary education.
4. Successfully complete required hours of fieldwork experience. Presently a minimum of 100 clock hours of field experience is required, including required FETE courses.
5. Successfully complete professional education course requirements, either elementary or secondary.
6. Successfully complete student teaching.

Exit Criteria

1. Successful completion of all course work on program (designated minimum GPA overall, and in major/minors).
2. Successful completion of required student teaching.

Curricula

Most courses required for post-baccalaureate certification are undergraduate courses (course numbers under 500). It is important to note that 600-level or higher courses may not be used on a program of study.

Post-Baccalaureate Program in Elementary Education

General Studies Requirements

Students must complete a minimum of 40 credit hours in general education, which include the areas listed below. Many students can meet most general studies requirements through courses previously taken as part of a bachelor's degree. This is current practice:

- a course in history
- a course in earth science
- a course in either physics or chemistry
(*at least one of the sciences must include a lab*)
- a course in literature
- a course in written communication
- a course in oral communication
- a course in the arts: art, dance, music or theater
- a course in world religions
- a course in U.S. government
- a course in general psychology
- a course in calculus or MATH108
- MATH109 or equivalent

Professional Education Sequence

Pre-admission Phase: The Learner and the Community

†EDPS322 Human Development and Learning (4 hrs)

†FETE201 Field Experience I: Elementary (1 hr)

One course from the following:

SPGN510 The Exceptional Child in the Regular Classroom (3 hrs)

SPGN251 Education of Students with Exceptionalities (3 hrs)

Phase I: Curriculum, Assessment and the Social Context

Prerequisite: Admission to the teacher education program.

HLED320 Health Education in the Elementary Grades (2 hrs)

SOFD328 Schools in a Multicultural Society (3 hrs)

†EDPS340 Introduction to Assessment and Evaluation (3 hrs)

†CURR304 Elementary Curriculum and Methods (3 hrs)

†FETE301 Field Experience II: Elementary (1 hr)

RDNG300 Early Literacy (3 hrs)

Phase II: Content Methods and Technology

EDMT330 Technology and Media in the Classroom (2 hrs)

†RDNG310 Literacy Across the Curriculum in the Intermediate Grades (3 hrs)

†FETE401 Field Experience III: Elementary (1 hr)

†BIOL303 Life Science for Elementary Teachers (3 hrs)

MATH381 The Teaching of Mathematics (3 hrs)

Phase III: Capstone Experience

Prerequisite: Completion of Phases I and II.

EDUC492 Student Teaching (12 hrs)

100 Clock Hours Pre-Student Teaching Required

Note:

†*Corequisites*

Major/Minor Requirements for Post-Baccalaureate Programs in Elementary Education

One approved major and minor, or three approved minors are required. The planned program in structure of the disciplines may be used as a minor except for programs including a special education major, an early childhood minor or a bilingual-bicultural minor. See below for list of approved majors and minors.

Recommended Teaching Majors

Elementary Integrated Science

Language Arts Group

Mathematics for the Elementary Teaching Certificate

Reading

Social Studies Group Major for Elementary Education

Approved Minors

Arts Group

Bilingual-Bicultural Education (Spanish-English)

Early Childhood Education

Elementary Music Education

Elementary Science Group

Elementary Integrated Science

French, German and Spanish Language

Health

Language Arts Group

Mathematics for the Elementary Teaching Certificate

Reading

Social Studies Group

Structure of the Disciplines

Technology and Design

Post-Baccalaureate Program in Secondary Education

General Studies Requirements

Students must complete a minimum of 40 credit hours in general studies, which include the areas listed below. Many students can meet most general studies requirements through courses previously taken as part of a bachelor's degree.

a course in history

a course in science with a laboratory component

a course in literature

a course in written communication

a course in oral communication

a course in mathematics

a course in the arts: art, dance, music or theater

a course in U.S. government

a course in general psychology

Major/Minor Requirements

Students must complete one approved major and one approved minor.

Approved Majors for Secondary Education

Biology

Business Education (BMMT) Business, Management, Marketing and Technology

Chemistry

Communication and Theatre Arts (speech)

Computer Science

Earth Science

French

Geography

German Language

History

Language, Literature and Writing (English)

Mathematics

Physics

Political Science

Psychology (requires an additional major)

Social Studies

Spanish

Approved Minors for Secondary Education

Bilingual-Bicultural Education (Spanish-English)

Biology

Chemistry

Comprehensive Minor in Communication and Theatre Arts (speech)

Computer Science

Earth Science

French Language

Geography

German Language

Health

History

Language, Literature and Writing (English)

Mathematics

Physical Education
Physics
Political Science
Psychology
Sociology
Spanish Language

Approved K-12 (Secondary Certificate)

French Language
German Language
Japanese Language and Culture
Music (Instrumental)
Music (Vocal)
Physical Education
Spanish Language
Special Education
Technology and Design Education
Visual Art Education

Professional Education Sequence

Pre-admission Phase: The Learner and the Community

†EDPS322 Human Development and Learning (4 hrs)
†FETE201 Field Experience I: Secondary (1 hr)
One course from the following:
SPGN510 The Exceptional Child in the Regular Classroom (3 hrs)
SPGN251 Education of Students with Exceptionalities (3 hrs)

Phase I: Curriculum, Assessment, and the Social Context

Prerequisite: Admission to the teacher education program
SOFD328 Schools in a Multicultural Society (3 hrs)
†EDPS340 Introduction to Assessment and Evaluation (3 hrs)
†CURR305 Curriculum and Methods: Secondary (3 hrs)
†FETE302 Field Experience II: Secondary (1 hr)

Phase II: Content Methods and Technology

EDMT330 Technology and Media in the Classroom (2 hrs)
†RDNG311 Teaching Reading in the Secondary School (3 hrs)
†FETE402 Field Experience III: Secondary (1 hr)
Methods of Teaching in Subject Area (2-4 hrs)

Phase III: Capstone Experience

Prerequisite: Completion of Phases I and II.
EDUC492 Student Teaching (12 hrs)

100 Clock Hours Pre-Student Teaching Required

Note:
†*Corequisites*

College of Health and Human Services

Dean

Jeanne Thomas
206 Everett L. Marshall Building
Phone: 734.487.0077

Associate Dean

Jeffrey Schulz
206 Everett L. Marshall Building
Phone: 734.487.0077

Assistant Dean and Coordinator - CHHS Advising

Martha Sutton
324 Everett L. Marshall Building
Phone: 734.487.0918

Administrative Assistant

Judy Stokes
206 Everett L. Marshall Building
Phone: 734.487.0077

Schools

- Health Promotion and Human Performance
- Health Sciences
- Nursing
- Social Work

Mission Statement

Consistent with the University mission, the College of Health and Human Services partners with communities to prepare caring and competent professionals, generate knowledge and advocate for social justice in order to enhance quality of life, health and well being. We achieve this mission through:

- Providing a collaborative, hands-on, community-based learning environment.
- Emphasizing intellectual rigor, ethics and cultural competence for professional practice in a diverse society.
- Our commitment to access and opportunity through flexible programming.
- Disciplinary and multidisciplinary scholarship applied to relevant social and health concerns.
- A faculty that engages in state of the art practice and provides leadership in the professions and the community.

The Everett L. 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 instructional technology controlled from a touch panel at the podium. 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 and wireless service in the commons areas to provide easy access to the Internet. Two student commons areas and a café in a two-story atrium space provide comfortable environments for studying or group work.

Laboratory spaces include the clinical lab sciences suite, two occupational therapy labs, a nursing skills lab, a nursing 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 College Advising Center is located on the third floor in Marshall.

The College of Health and Human Services Advising Center
Address: 324 Marshall Building
Phone: 734.487.0918
E-mail: chhsadvising@emich.edu
Web site: www.emich.edu/chhs/advising

The Center advises all undeclared undergraduate students interested in programs related to health and human services. The goal of the Center is to facilitate retention and academic achievement of students interested in health and human service careers.

See page 316 for College of Health and Human Services interdisciplinary course descriptions.

School of Health Promotion and Human Performance

Address: 318-319 Porter Building
Phone: 734.487.4388
E-mail: mnair@emich.edu
Web site: www.emich.edu/php

See pages 256, 257, 311, 340, 342, 355 and 363 for course descriptions.

Any student who has started his/her academic career after the fall 1996 semester shall take the PEGN210 Lifetime Wellness and Fitness course. In addition, students may elect up to eight credit hours of physical education activity courses that enhance students' personal development, health-related fitness and their use of leisure. All students seeking admission to a professional major program must apply in 318-319 Porter. Upon acceptance into a program, declared major students are assigned a faculty adviser.

In addition, the school provides career education in the fields of health, physical education, adapted physical education, exercise science, athletic training, recreation and park management, and orthotics and prosthetics.

Three physical education facilities are available for student use. Warner Physical Education Building, dedicated in 1964, houses the majority of areas used by the school to instruct students in their career preparation. The facility includes three gymnasiums, a dance studio, a combatives room, a gymnastics room, sports medicine lab, orthotics and prosthetics lab and four classrooms.

Adjacent and attached to Warner are Bowen Field House and the Olds-Robb Rec/IM building, where classes are taught in facilities such as the indoor track, racquetball/paddleball courts and a 50-meter swimming pool.

The school is affiliated with the American Alliance and Michigan Associations of Health, Physical Education, Recreation and Dance; the American College of Sport Medicine; the American School Health Administration; the Society of Public Health Education; and the National Athletic Trainers Association. It also sponsors the student professional organizations Eta Sigma Gamma (health) and Delta Psi Kappa (physical education). Other student organizations include the Student Athletic Trainer Club, the Student Exercise Science Club and the Physical Education Organization.

Endorsements

State of Michigan Endorsement as a Physical Education Teacher for Students with Disabilities.

Fieldwork is a criterion of individual professional programs. Extracurricular assignments enhance the practical application of knowledge learned in the classroom.

Certification is dependent upon the professional program a student selects. Each of the major and minor programs allows students to fulfill professional preparation for different careers.

Graduate study leads to the master's degree in physical education with emphasis in pedagogy, exercise physiology and athletic administration. A master's degree in health education and a postgraduate certificate in orthotics and prosthetics is also available. For descriptions of graduate courses and programs, consult the graduate catalog.

Activity Courses for General Students

Students are required to wear apparel appropriate for safe and efficient participation in the particular course activity. Students may utilize the locker room by paying a locker and towel fee. This fee is payable at the Cashier's Office, 201 Pierce.

Curriculum for Sports Medicine

Sports medicine is a comparatively new field of study that integrates sports, medicine, the sciences and other health-related areas into a professional cur-

riculum. It is identified under different approaches and titles including: athletic training, cardiovascular rehabilitation, exercise physiology and biomechanics.

The program has established special course prerequisites, GPA requirements and candidacy admission requirements. No outside minor is needed.

Sports Medicine — Athletic Training

Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP)

All forms and the most up to date information about the Athletic Training Education program at Eastern Michigan University, can be obtained from the program web site at: www.emich.edu/goeagles/sportsmedicine.

Students in the sports medicine athletic training curriculum that are applying to begin their clinical experience must obtain and submit a medical physical to be reviewed by physicians that are part of the EMU sports medicine team. They must obtain, complete and submit an application for ATTR225 Practicum I and complete the Hepatitis B vaccination form prior to enrolling in the clinical education coursework. These forms may be printed from the athletic training web site or picked up from their athletic training adviser.

The athletic training educational program at Eastern Michigan University is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the athletic training educational program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs [CAAHEP]). The following abilities and expectations must be met by all students admitted to the athletic training educational program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the National Athletic Trainers' Association Board of Certification (NATABOC) certification exam.

Candidates for selection to the athletic training educational program must demonstrate:

- The capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
- Sufficient postural and neuromuscular control, sensory function and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients.
- The ability to communicate effectively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice.
- The ability to record the physical examination results and a treatment plan clearly and accurately.
- The capacity to maintain composure and continue to function well during periods of high stress.
- The perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced.
- Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.
- Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Candidates for selection to the athletic training educational programs will be required to verify they understand and meet these technical stan-

dards or that they believe that, with certain accommodations, they can meet the standards.

The Access Services Office will evaluate a student who says he/she could meet the program's technical standards with accommodation and confirm that the stated condition qualifies as a disability under applicable laws.

If a student says he/she can meet the technical standards with accommodation, then the University will determine whether it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review of whether the accommodations requested are reasonable, taking into account whether accommodation would jeopardize clinician/patient safety or the educational process of the student or the institution, including all coursework, clinical experiences and internships deemed essential to graduation.

Students entering the athletic training program are listed as "intents" and cannot be considered for candidacy until the following criteria are met:

1. Officially enroll in the program at the Academic Advising Center (Pierce Hall) and complete a sports medicine application at 318 Porter.
2. Overall GPA at Eastern Michigan University of 2.9 (transfer GPA evaluated separately).
3. Completion of 50 hours of the program.
4. Grade of C or above in BIOL105 Introductory Biology for Non-majors
5. Completion of Practicum I application, Technical Standards, a medical examination by a physician and Hepatitis B vaccination form.
6. Completion of the following courses with a grade of B or above:

ATTR225 Practicum I
SPMD119 Orientation to Sports Medicine
SPMD201/ATTR201 Human Anatomy for Sports Medicine
SPMD202/ATTR202 Human Physiology for Sports Medicine

7. Currently enrolled in ATTR290 Practicum II
8. Three letters of recommendation, two professional and one personal.
9. Biographical sketch
10. One page response to the statement: "I should be admitted into the Athletic Training Education Program because..."

When an "intent" has successfully achieved the above, he/she must apply for candidacy. The application form can be obtained from the program coordinator or the clinical coordinator or online at the program's web site (www.emich.edu/goeagles/sportsmedicine). The "intent" will be notified of the date and time for a personal interview with the Athletic Training Education Committee.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 17-19 hours
PEGN210 Lifetime Wellness and Fitness (2 hrs)
PHY221 Mechanics, Sound and Heat (4 hrs)
One group from the following:
BIOL105 Introductory Biology for Non-majors (4 hrs)
CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
or
BIOL110 Introductory Biology I (5 hrs)
CHEM121/122 General Chemistry I/General Chemistry Lab (3/1 hrs)
One course from the following:
PSY101 General Psychology (3 hrs)
PSY102 General Psychology (4 hrs)

Sports Medicine — Athletic Training 62 hours
ATTR219 Introduction to Athletic Training (3 hrs)
ATTR225 Practicum I (2 hrs)
ATTR290 Practicum II (2 hrs)
ATTR295 Assessment of Lower Body Injuries (3 hrs)
ATTR296 Assessment of Upper Body Injuries (3 hrs)
ATTR310 Emergency Care in Athletic Training (2 hrs)
ATTR326 Practicum III (1 hr)
ATTR327 Practicum IV (1 hr)
†ATTR322 Therapeutic Exercise for Athletic Trainers (3 hrs)

- †ATTR390 Senior Practicum (2 hrs)
- †ATTR419 Medical Aspects of Athletic Training (3 hrs)
- ATTR420 Administrative and Legal Aspects of Athletic Training (2 hrs)
- ATTR485 Seminar in Athletic Training (2 hrs)
- ATTR490 Internship Athletic Training (8 hrs)
- DTC204 Sports Nutrition (3 hrs)
- PHED300/SPMD300 Physiology of Exercise (4 hrs)
- SPMD119 Orientation to Sports Medicine (1 hr)
- SPMD201/ATTR201 Anatomy for Sports Medicine (3 hrs)
- SPMD202/ATTR202 Physiology for Sports Medicine (3 hrs)
- SPMD221 Therapeutic Modalities for Athletic Trainers (3 hrs)
- SPMD280 Pharmacology for Sports Medicine (2 hrs)
- SPMD305 Kinesiology-Tissue Mechanics (3 hrs)
- SPMD380 Behavioral Aspects of Sports Medicine (3 hrs)

University Elective Courses 3-5 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

The above curriculum, numerous clinical competencies/proficiencies and clinical experience under the supervision of an NATA-certified athletic trainer are required for graduation and to sit for the NATABOC certification exam. In addition, completed athletic training education competencies are required by all students prior to graduation from the CAAHEP accredited program. Clinical education must be attained in no less than two academic years and not more than five years.

†These courses are reserved for candidate students.

Sports Medicine — Exercise Science

Students entering the exercise science program are listed as “intents” and will be considered for candidacy when the following criteria are met:

1. Declare intent to major in exercise science with the Academic Advising Center in Pierce Hall and the School of Health Promotion and Human Performance.
2. Achieve an overall GPA at Eastern Michigan University of 2.75 (transfer GPA evaluated separately).
3. The following courses must be completed with a grade of C or better: BIOL105†, CHEM120†, PHY221, SPMD119, SPMD201/ATTR201 and SPMD202/ATTR202.

When an “intent” has successfully achieved the above, he or she must complete the candidacy application, including the application form, three letters of recommendation (two professional and one personal) and a biographical sketch, and turn this in to their adviser. Once accepted into candidacy, the student must maintain a minimum 2.75 GPA. The student will not be allowed to complete the internship experience (SPMD480) if the GPA falls below 2.75. In addition, a grade of B- or better must be attained in the following courses: PHED300/SPMD300, SPMD325, SPMD410, SPMD430, SPMD431, SPMD432 SPMD433 and SPMD480. If the above are not met, the course(s) in question must be retaken.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 2 hours
PEGN210 Lifetime Wellness and Fitness (2 hrs)

Major Requirements 65-69 hours
Precandidacy Courses 22 hours

- PHY221 Mechanics, Sound and Heat (4 hrs)
- PSY101 General Psychology (3 hrs)
- SPMD119 Orientation to Sports Medicine (1 hr)
- SPMD201/ATTR201 Anatomy for Sports Medicine (3 hrs)
- SPMD202/ATTR202 Physiology for Sports Medicine (3 hrs)

One group from the following:

- †BIOL105 Introductory Biology for Non-majors (4 hrs)
- †CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)

or

- †BIOL110 Introductory Biology I (5 hrs)
- †CHEM121/122 General Chemistry I/General Chemistry Lab (3/1 hrs):

Required Courses 17 hours

- DTC204 Sports Nutrition (3 hrs)
- PHED300/SPMD300 Physiology of Exercise (4 hrs)
- SPMD280 Pharmacology For Sports Medicine (2 hrs)
- SPMD305 Kinesiology-Tissue Mechanics (3 hrs)
- SPMD325 Practicum in Exercise Science (2 hrs)
- SPMD380 Behavioral Aspects of Sports Medicine (3 hrs)

Required Courses (Postcandidacy) 24 hours

- SPMD410 Laboratory Techniques in Human Performance Analysis (4 hrs)
- SPMD430 Principles of Electrocardiography (3 hrs)
- SPMD431 Pathology for Sports Medicine (3 hrs)
- SPMD432 Introduction to Exercise Programming (3 hrs)
- SPMD433 Principles of Strength and Conditioning (3 hrs)
- SPMD480 Internship — Exercise Science (8 hrs)

Elective Courses 2-6 hours

Only two credit hours are required if the 124 credit hours program total has been met. If the 124 credit hours have not been completed, then six credit hours are required.

- PHED260 Motor Development (2 hrs)
- PHED360 Motor Learning (3 hrs)
- Any undergraduate or graduate-level SPMD course

Minor Requirements 0 hours

No minor is required. For students interested in fitness and wellness center management, a minor in management (21 hours) is encouraged.

University Elective Courses 13-17 hours

Program Total 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†For students also preparing for medical school, physical therapy school or physician assistant school, BIOL110 and CHEM121/122 should be taken instead of BIOL105 and CHEM120. These substitutions will meet program and general education requirements. Grade requirements will still be enforced.

Physical Education Major

K-12 Teacher Certification

Successful completion of this course of studies leads to a bachelor of science degree, and qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate K-12 endorsement in physical education, certification code MB and, depending on the minor selected, an additional endorsement. This program of studies meets all requirements of the National Association for Sport and Physical Education/American Alliance for Health, Physical Education, Recreation and Dance. The Michigan Test for Teacher Certification (MTTC) covering this field is No. 44, “Physical Education” and is taken at the completion of all program requirements.

Students planning admission to the physical education major must officially enroll in the program at the Academic Advising Center and complete an application at 318/319 Porter.

Students seeking certification must meet requirements for entry into the teacher education program. The course of studies requires completion of general education requirements, an approved teaching minor in a sec-

ondary subject area, the physical education major and professional education courses.

The course of studies is uniquely designed to provide students with theoretical and practical knowledge of how to deliver physical education programming to students with and without disabilities, from K-12. The Exemplary Physical Education Curriculum (EPEC) is used as a model to enable students to develop exemplary physical education programs upon graduation. The methods of teaching courses provide information on the sequencing and presenting of a wide variety of activities found within the public schools.

Fieldwork experiences are a critical component of the professional program. Extracurricular assignments enhance the practical application of knowledge learned within the classroom. Majors are required to complete a minimum of 100 hours of prestudent teaching experiences with students of all ages and abilities. Fieldwork experiences will begin in the freshman year, will include students with and without disabilities and will culminate in a one semester student teaching assignment with elementary and secondary students under the supervision of master teachers.

This program primarily serves the needs of K-12 school programs in Michigan and the United States. Faculty provide students with numerous opportunities for professional growth. Opportunities for additional certifications and endorsements such as water safety instructor (WSI), American Red Cross First Aid, coaching and certification in programs for students with disabilities are also available and strongly encouraged.

The physical education major program participates in the Honors College. Students wishing to enroll in the Honors Program must maintain a GPA of 3.3 and fulfill all requirements in specific honor courses. See the department honors adviser for specific information.

Physical Education Majors/Minors Academic Standards

Standard I

The following core physical education courses shall be completed by physical education majors prior to admission into the college of education in addition to requirements currently in place.

- PHED100 History and Foundation of Physical Education (2 hrs)
- PHED200 Anatomy and Physiology (5 hrs)
- PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)
- PHED260 Motor Development (2 hrs)

Standard II

The following GPA requirements for physical education majors are required prior to being admitted to the student teaching experience.

- (A) Minimum cumulative GPA of 2.75 needed in the following core courses with no single grade lower than a C. (College of Education overall GPA requirements remain in effect).
 - PHED100 History and Foundation of Physical Education (2 hrs)
 - HLED210 Red Cross First Aid (2 hrs)
 - PHED200 Anatomy and Physiology (5 hrs)
 - PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)
 - PHED260 Motor Development (2 hrs)
 - PHED300/SPMD300 Physiology of Exercise (4 hrs)
 - PHED330 Adapted Physical Education (3 hrs)
 - PHED360 Motor Learning (3 hrs)
- (B) Minimum grade of B in the following Methods of Teaching courses.
 - PHED215 Methods of Teaching Individual Sports (3 hrs)
 - PHED217 Methods of Teaching Team Sports (3 hrs)
 - PHED219 Methods of Teaching Rhythmic Activity and Fundamental Movement
 - PHED315 Methods of Teaching Conditioning Activities (2 hrs)
 - PHED317 Methods of Teaching Elementary Physical Education (2 hrs)

Standard III

The following GPA requirements and minimum grade standard are required for the completion of the physical education minor and the physical education minor for special education majors.

- (A) Overall cumulative GPA as required by the College of Education
- (B) No single grade lower than C in any required class and GPA of 2.75 in minor courses.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements2 hours
PEGN210 Lifetime Wellness and Fitness (2 hrs)

Major Requirements..... 37 hours
HLED210 Standard American Red Cross First Aid (2 hrs)
PHED100 History and Foundation of Physical Education (2 hrs)
PHED200 Anatomy and Physiology (5 hrs)
PHED204 Kinesiology (3 hrs)
PHED215 Methods of Teaching Individual Sports (3 hrs)
PHED217 Methods of Teaching Team Sports (3 hrs)
PHED219 Methods of Teaching Rhythmic Activities, Fundamental Movement and Movement Education (3 hrs)
PHED260 Motor Development (2 hrs)
PHED300/SPMD300 Physiology of Exercise (4 hrs)
PHED315 Methods of Teaching Conditioning Activities (2 hrs)
PHED317 Methods of Teaching Elementary Physical Education (2 hrs)
PHED330 Adapted Physical Education (3 hrs)
PHED360 Motor Learning (3 hrs)

Professional Education Courses..... 30 hours
EDPS322 Human Development and Learning (4 hrs)
EDUC496 Student Teaching (elementary experience) (6 hrs)
EDUC497 Student Teaching (secondary experience) (6 hrs)
PHED370 Physical Education Applied Technologies (2 hrs)
PHED415 Curriculum and Instruction in Physical Education (3 hrs)
PHED470 Assessment and Evaluation in Physical Education (2 hrs)
PHED495 Senior Seminar (1 hr)
RDNG311 Teaching of Reading (3 hrs)
SOFD328 Schools in a Multicultural Society (3 hrs)

Minor Requirements 20-24 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Program Total 129-133 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Physical Education Non-Teaching Major

The physical education non-teaching option is available for students who wish to pursue careers in health and wellness other than the teaching of physical education. Graduates have found employment in fitness centers, as coaches of sports teams and other sport-related fields and have used the degree for entry into graduate study in athletic administration, occupational and physical therapy and related careers.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours
PSY101 General Psychology (3 hrs)

Major Requirements.....	39 hours
Required Courses.....	39 hours
HLED210 Standard American Red Cross First Aid (2 hrs)	
PHED100 History and Foundation of Physical Education (2 hrs)	
PHED200 Anatomy and Physiology (5 hrs)	
PHED204 Kinesiology (3 hrs)	
PHED215 Methods of Teaching Individual Sports (3 hrs)	
PHED217 Methods of Teaching Team Sports (3 hrs)	
PHED219 Methods of Teaching Rhythmic Activities, Fundamental Movement and Movement Education (3 hrs)	
PHED260 Motor Development (2 hrs)	
PHED300/SPMD300 Physiology of Exercise (4 hrs)	
PHED315 Methods of Teaching Conditioning Activities (2 hrs)	
PHED317 Methods of Teaching Elementary Physical Education (2 hrs)	
PHED330 Adapted Physical Education (3 hrs)	
PHED360 Motor Learning (3 hrs)	
PHED370 Physical Education Applied Technologies (2 hrs)	

Minor Requirements	20 hours
University Elective Courses	22 hours
Program Total	124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Coaching Minor

This program is intended for students planning to pursue coaching as a full- or part-time activity. The minor is not considered a teacher minor for education majors.

Minor Requirements	23 hours
Required Courses.....	13 hours
HLED490 Drug Use and Abuse (3 hrs)	
PHED200 Anatomy and Physiology (5 hrs)	
PHED421 Legal Aspects of Sport, Physical Education and Recreation (2 hrs)	
SPMD380 Behavioral Aspects of Sports Medicine (3 hrs)	
Restricted Elective Courses.....	10 hours
<i>Four to six hours from the following:</i>	
ATHL263 Theory of Football (2 hrs)	
ATHL265 Theory of Baseball (2 hrs)	
ATHL267 Theory of Basketball (2 hrs)	
ATHL268 Theory of Coaching Swimming (2 hrs)	
ATHL269 Theory of Track and Field (2 hrs)	
Other Theory Coaching Courses	
<i>Four to six hours from the following:</i>	
ATHL261 Techniques of Officiating I (2 hrs)	
ATHL262 Techniques of Officiating II (2 hrs)	
PHED305 Practical Concepts of Conditioning (2 hrs)	
PHED316 Foundations of Coaching (2 hrs)	
PHED360 Motor Learning (3 hrs)	
PHED389 Sport and Activity for the Disabled (1 hr)	
PHED405 Women in Sports (2 hrs)	
PHED477/478/479 Special Topics (see adviser) (1/2/3 hrs)	
Minor Total.....	23 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Recreation and Park Management Minor

The mission of the recreation and park management minor is to provide a core of training that is sufficient in depth and breadth for individuals from a variety of specializations for employment in public and private agencies to supervise recreation facilities and provide recreation services. The need to integrate into the community, to reposition the recreation profession as a catalyst for decision making, to assist in solving community problems, is emphasized. Training in the minor is directed to heighten concern for providing recreation opportunities in an increasingly pluralistic society and to promote environmental stewardship and sustainability.

- The recreation and parks management minor is aimed at:
1. Majors who desire training in the recreation industry who are concurrently acquiring knowledge and skills in, for example, business, the humanities and social sciences.
 2. Individuals seeking training in the recreation industry after earning a degree, but who choose not to seek a second degree.
 3. Individuals who already have a degree and who have or who are working in a variety of fields but seek a change in employment to the recreation industry.
 4. Majors in other fields who want to develop additional employment opportunities in the recreation industry in addition to their own specialization.
 5. Individuals who desire knowledge and skills of the recreation industry.

- Objective of the minor:
1. To build on an existing and/or developing base of knowledge and skills in other occupational areas.
 2. To provide knowledge and skills to succeed in the recreation industry.
 3. To provide knowledge of leisure and recreation as phenomena in society.
 4. To provide the opportunity to earn the minor in two semesters for individuals seeking to retool in an occupational specialty.

Required Courses.....	9 hours
RECR100 Introduction to Recreation and Leisure (3 hrs)	
RECR260 Recreation Leadership (3 hrs)	
RECR360 Therapeutic Recreation Program Planning (3 hrs)	
Restricted Elective Courses.....	15 hours
RECR271 Park Maintenance (3 hrs)	
RECR280 Camping (2 hrs)	
RECR290 Practical Research in Recreation (3 hrs)	
RECR370 Leisure Facility Design and Management (3 hrs)	
RECR390 Outdoor Recreation (3 hrs)	
RECR450 Park Planning and Design (3 hrs)	
RECR460 Park and Recreation Administration (3 hrs)	
RECR465 Park and Recreation Management (3 hrs)	
Minor Total.....	24 hours

School Health Minor

This program is intended for students who wish to pursue a career in community health education. The minor is not considered a teaching minor for education majors.

Minor Requirements	20 hours
Required Courses.....	17 hours
HLED130 Healthy Sexuality (3 hrs)	
HLED210 First Aid (2 hrs)	
HLED270 Principles of Health Education (3 hrs)	
HLED305 Current Health Issues I (3 hrs)	
HLED315 Current Health Issues II (3 hrs)	
HLED490 Drug Use and Abuse (3 hrs)	
Restricted Elective Courses.....	3 hours
<i>Students will choose three credit hours of health-related coursework in consultation with their health minor adviser.</i>	

Minor Total..... 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Physical Education Minor

Secondary, K-12 and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physical education, certification code MB, according to their major area of study (i.e. a secondary education major will receive a secondary education endorsement). The Michigan Test for Teacher Certification (MTTC) covering this field is No. 44, "Physical Education," and should be taken at the completion of the program.

Minor Requirements 25 hours

- PHED200 Anatomy and Physiology (5 hrs)
 - PHED204 Kinesiology (Biomechanics of Physical Activity) (3 hrs)
 - PHED260 Motor Development (2 hrs)
 - PHED300/SPMD300 Physiology of Exercise (4 hrs)
 - PHED315 Methods of Teaching Conditioning Activities (2 hrs)
 - PHED330 Adapted Physical Education (3 hrs)
 - PHED415 Curriculum and Instruction in Physical Education (3 hrs)
- One course from the following:*
- PHED215 Methods of Teaching Individual Sports (3 hrs)
 - PHED217 Methods of Teaching Team Sports (3 hrs)

Minor Total..... 25 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Physical Education Minor for Special Education Majors

Special Education-Elementary and Special Education-Secondary Teacher Certification (available only to special education majors)

This program is intended for special education majors interested in a teaching minor in adapted physical education. The minor in adapted physical education is designed for undergraduates who wish to complete the State of Michigan Endorsement for Teachers of Students with Disabilities. Because it is a minor, students are required to meet University requirements governing minors as well as the competencies in the revised *Administrative Rules for Special Education* (April, 1997).

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in physical education, certification code MB, according to their major area of study (i.e. a secondary education major will receive a secondary education endorsement). The Michigan Test for Teacher Certification (MTTC) covering this field is No. 44, "Physical Education," and should be taken at the completion of the program.

Minor Requirements 24 hours

Required Courses..... 20 hours

- ‡PHED200 Anatomy and Physiology (5 hrs)
- PHED260 Motor Development (2 hrs)
- PHED300/SPMD300 Physiology of Exercise (4 hrs)
- PHED330 Adapted Physical Education (3 hrs)
- PHED388 Assessment in Adapted Physical Education (1 hr)
- PHED389 Sport and Activity for the Disabled (1 hr)
- PHED415 Curriculum and Instruction in Physical Education (3 hrs)
- PHED434 Adapted Preschool Physical Education (1 hr)

Restricted Elective Courses..... 4 hours

Four hours from the following:

- PHED215 Methods of Teaching Individual Sports (3 hrs)
- PHED217 Methods of Teaching Team Sports (3 hrs)
- PHED313 Methods of Teaching Gymnastics (2 hrs)
- PHED315 Methods of Teaching Conditioning Activities (2 hrs)
- PHED317 Methods of Teaching Elementary Physical Education (2 hrs)
- PHED319 Methods of Teaching Aquatics (2 hrs)
- PHED415 Curriculum and Instruction in Physical Education (3 hrs)
- ‡PHED490 Field Experience in Adapted Physical Education (4 hrs)

Minor Total..... 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
‡This course is required for those students seeking the State of Michigan Endorsement as a Physical Education Teachers for Students with Disabilities.
‡Majors in physically and otherwise health impaired (POHI) are exempt from this requirement. However, students must select an additional five credit hours of electives in consultation with the adapted physical education adviser.

School Health Minor Teaching

Elementary, Secondary, Special Education-Elementary and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in health, certification code MA The Michigan Test for Teacher Certification (MTTC) covering this field is No. 43, "Health."

Minor Requirements 24 hours

- HLED270 Principles of Health Education (3 hrs)
- HLED305 Current Health Issues I (3 hrs)
- HLED315 Current Health Issues II (3 hrs)
- HLED325 Instructional Skills and Strategies for Health Education (3 hrs)
- HLED355 Health Education Program Planning (3 hrs)
- HLED450 Health Education Assessment (3 hrs)
- HLED460 Concepts in Sexuality Education (3 hrs)
- HLED490 Drug Use and Abuse (3 hrs)

Minor Total..... 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

School of Health Sciences

Address: 313 Marshall Building
Phone: 734.487.4096
E-mail: chhsadvising@emich.edu
Web site: www.emich.edu/hs/

See pages 269, 285, 305, 309, 339 and 370 for course descriptions.

The School of Health Sciences offers programs that lead to the baccalaureate in clinical laboratory sciences, dietetics, health administration, dietetics and human nutrition, therapeutic recreation and a master's in occupational

therapy, dietetics and human nutrition and clinical research administration. The department also offers minors in health administration and human nutrition. In addition, the department offers several interdisciplinary courses relating to the health services and the health care specialities.

The School of Health Sciences has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.S. Dietetics** — Owens Community College
- B.S. Health Administration** — Henry Ford Community College
- B.S. Health Administration** — Schoolcraft College
- B.S. Health Administration** — Washtenaw Community College

See page 11 for further details

Certification as a Medical Technologist

There are four certifying agencies for medical technologists: (1) American Society of Clinical Pathologists, (2) National Certifying Agency for Clinical Laboratory Personnel, (3) International Society of Clinical Laboratory Technologists and (4) American Medical Technologists. Because there can be differences in hiring practice and salary differentials based on agency certification, it is recommended that students carefully consider agency certification before the examination is taken. The clinical laboratory sciences office has information on each of the agencies mentioned.

Clinical Laboratory Sciences Program

The clinical laboratory sciences program offers two tracks, the clinical certification track that includes submajors of medical technology, cytogenetics and histotechnology; and the professional track. Each leads to the bachelor of science degree. The tracks are designed to prepare graduates for employment in hospitals, physician's offices, private laboratories, public health agencies, pharmaceutical companies and academic or industrial research. The professional track is the preferred course of study for students considering graduate school or advanced studies in the clinical sciences. The professional track also can be used as preparation for careers in medicine, dentistry, and veterinary science.

Advising is available by faculty through the clinical laboratory sciences program. To assess progress, students should meet with their adviser each semester in which they are enrolled in classes. The program is accredited by the:

National Accrediting Agency
for Clinical Laboratory Sciences
8410 West Bryn Mawr Ave.
Suite 670
Chicago, IL 60631

Clinical Laboratory Sciences/Medical Technology

Clinical Certification Track and Professional Track

This curriculum is a four-year program at Eastern Michigan University with two options or tracks:

1. Clinical certification track: the medical technology option consists of seven semesters of course work in general education, basic sciences and clinical sciences and includes 23 weeks of rotation through an accredited clinical laboratory. These rotations for the clinical track include:

University of Michigan, Ann Arbor
Providence Hospital, Southfield, MI
Henry Ford Hospital, Detroit for Cytogenetics
William Beaumont Hospital, Royal Oak for Histotechnology

The cytogenetics and histotechnology options consist of six semesters of course work and 12 months of clinical rotations through

an accredited clinical laboratory. These programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences.

2. Preprofessional track: this option consists of eight semesters of course work in general education and in basic, advanced and clinical sciences. Included will be a strongly recommended cooperative education experience in industry or academia. Graduates will be prepared for careers in medicine, dentistry, veterinary medicine and physician assistants, or other health care industries. Additionally, graduates will be eligible for entry into a master's or doctoral level program in the basic or clinical sciences. Students also would be eligible for one-year hospital rotations and subsequent certification as registered medical technologists.

The major in clinical laboratory sciences follows an interdisciplinary format composed of courses in clinical laboratory sciences, biology, chemistry and mathematics.

All students must complete the courses in each of the four areas of general education. At least 30 hours of the academic program must be completed at Eastern Michigan University. Students should be aware of the 60- and 75-hour rule regarding transfer of community college credit.

Continuation in the clinical laboratory sciences program is based upon the following:

- a. A minimum EMU cumulative GPA of 2.0 must be maintained. However, a cumulative GPA of less than 2.7 mandates warning students of their ineligibility for acceptance into the clinical track.
- b. No grade below C in any mathematics or science course.
- c. A grade of D (including D- and E) in two courses in the clinical laboratory sciences major may, upon recommendation by the Program Review Committee, result in dismissal from the CLS program.
- d. Freedom from any kind of probation, administrative, academic or social, must be maintained. While on academic probation, no student may register for, remain in, or receive credit for science courses or practicum courses within the clinical laboratory sciences program.

Successful completion of the clinical track and the bachelor of science degree qualifies students to take the national registry examination in medical technology. The two certifying agencies recommended are the American Society of Clinical Pathologists and the National Certifying Agency for Clinical Laboratory Personnel.

Clinical Track Requirements

Students must first be accepted to Eastern Michigan University before they can be considered by the Clinical Laboratory Science Program Screening Committee. However, admission to EMU does not guarantee admission into the clinical track program.

Students entering the program will be classified initially as clinical laboratory sciences "intent." Application for full admission to the clinical track program should be made during the winter semester of their junior year.

Application packets can be obtained from the program director. Completed applications must be in the office by March 15 in order to be considered for acceptance for the winter semester.

Selection criteria include overall EMU GPA, letters of recommendation, overall science GPA, interview evaluations and completed application form.

Admission to the clinical laboratory sciences curriculum/clinical track is competitive and is based on the following:

1. A minimum GPA of 2.7 on a 4.0 scale with no grade below C in any science, mathematics or preprofessional course. The prerequisite courses may be taken at EMU, or other four-year college/University or at a community college.
2. A minimum science GPA of 2.7.
3. Completion of at least 60 hours of University credit, including 45 credit hours of prerequisite mathematics and science courses, as indicated on the application form.
4. Three letters of recommendation. It is suggested that references should include a science instructor and an employer.
5. Students must document that they will have completed all prerequisite clinical laboratory sciences courses prior to beginning clinical rotations in the spring of their senior year.

The first three years of clinical laboratory sciences are the same for both the professional and clinical tracks. It is likely that acceptance into the clinical track will be highly competitive. Clinical laboratory sciences majors who are not accepted into the clinical track program, yet desire to sit for the registry examination in medical technology, have the following options:

1. Completion of the bachelor of science degree in clinical laboratory sciences (professional track) at Eastern Michigan University and filing a reapplication to the clinical track program.
2. Completion of all required course work for the bachelor of science degree in clinical laboratory sciences and application to an approved hospital-based school of medical technology. The faculty advisers will assist students in the application process. Students are selected for internship placement through a statewide computer matching process. The selection process is completed in February each year, with internships usually beginning during the month of July. A bachelor of science in clinical laboratory sciences will qualify the student to apply to hospitals within Michigan and throughout the United States.

Hospital-based schools of medical technology (internship programs) affiliated with the University are:

Detroit Medical Center, Detroit
St. John Hospital, Detroit
Genesys-St. Joseph, Flint, MI

Professional Track Requirements

The professional track is designed for students with an interest in the clinical sciences, whose career goals may not include working as a registered medical technologist in a hospital laboratory setting.

Students electing the professional track of the clinical laboratory sciences program complete eight semesters of academic course work.

The curriculum includes an optional but recommended cooperative education experience. Work opportunities are diverse and include employment in pharmaceutical companies, analytical laboratories and research laboratories. The clinical practicum is not required for the professional track.

Formal application into the professional track is not required. Students must maintain an overall GPA of 2.0 in the major and satisfy University requirements for graduation. Registration for cooperative courses requires a 2.5 overall GPA and 2.5 in the sciences.

These curricula lead to a bachelor of science in the clinical laboratory sciences program.

Histotechnology Track

Specialization in Histotechnology

Program Director: Peggy Wenk (William Beaumont Hospital)

Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. Basic histologic techniques involve the processing and staining of tissue specimens that have been removed from humans or animals by biopsy or autopsy. Advanced techniques involve the use of the electron microscope, immunofluorescence microscopy, autoradiography, cytogenetics and medical photography.

Students may be accepted into the histotechnology specialization after completing the required science, mathematics and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of a 12-month internship at William Beaumont Hospital School of Histotechnology.

Specialization in Cytogenetics

Program Director: Jim Zabawski (Henry Ford Hospital)

Cytogenetic technologists work independently under general supervision and can interpret and implement established procedures to prepare biological specimens for cytogenetics analysis, perform the analysis and construct and interpret karyotypes.

Students may be accepted into the cytogenetics specialization after completing the required science, mathematics and clinical laboratory science courses. University general education requirements must also be met. The senior year consists of a 12-month internship at Henry Ford in the Cytogenetics department. The program consists of an integrated presentation of didactic material and intensive laboratory study in the area of cytogenetics that includes specimen preparation, cell culture, chromosome analysis, microscopy and photography.

Clinical Laboratory Sciences Major — Clinical Track — Specialization in Medical Technology

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 25 hours

BIOL110 Introductory Biology (5 hrs)
†CHEM121/122 General Chemistry I with lab (4 hrs)
CHEM123 General Chemistry II (3 hrs)
CHEM124 General Chemistry II Laboratory (1 hr)
CHEM270 Survey of Organic Chemistry (4 hrs)
CHEM271 Organic Chemistry Lab (1 hr)
CHEM351 Foundations of Biochemistry I (4 hrs)

One course from the following:

MATH170 Elementary Statistics (3 hrs)
SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements..... 57 hours

CLSC200 Clinical Laboratory Techniques (3 hrs)
CLSC300 Molecular Diagnostics (3 hrs)
CLSC307 Urinalysis, Body Fluids, and Hemostasis (3 hrs)
CLSC335 Clinical Immunology (4 hrs)
CLSC401 Laboratory Management/Education (3 hrs)
CLSC402 Clinical Chemistry (3 hrs)
CLSC407 Hematology (4 hrs)
CLSC432 Clinical Microbiology (3 hrs)
CLSC433 Clinical Microbiology Laboratory (2 hrs)
CLSC434 Immunohematology (3 hrs)
CLSC450 Hematology/Coagulation Practicum (5 hrs)
CLSC452 Clinical Immunology/Immunohematology Practicum (5 hrs)
CLSC454 Clinical Chemistry Practicum (5 hrs)
CLSC455 Clinical Chemistry Lab (2 hrs)
CLSC456 Clinical Microbiology Practicum (5 hrs)
CLSC457 Clinical Methods Practicum (1 hr)
CLSC459 Clinical Mycology Practicum (3 hrs)

Minor Requirements 0 hours

No minor is required.

University Elective Courses 3 hours

BIOL301 and BIOL305 are recommended.

Program Total..... 125 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

†MATH105 or a math placement level of four is a prerequisite for CHEM121/122.

Clinical Laboratory Sciences Major — Pre-Professional Track

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 19 hours

AHPR200 Medical Terminology (1 hr)
BIOL110 Introductory Biology (5 hrs)
BIOL301 Genetics (3 hrs)
BIOL305 Cell and Molecular Biology (3 hrs)
†CHEM121/122 General Chemistry I with lab (4 hrs)

One course from the following:

MATH170 Elementary Statistics (3 hrs)
SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements..... 53 hours

CHEM123 General Chemistry II (3 hrs)
CHEM124 General Chemistry II Laboratory (1 hr)

CHEM270 Survey of Organic Chemistry (4 hrs)
 CHEM271 Organic Chemistry Lab (1 hr)
 CHEM281 Quantitative Analysis (4 hrs)
 CHEM351 Foundations of Biochemistry I (4 hrs)
 CLSC200 Clinical Laboratory Techniques (3 hrs)
 CLSC300 Molecular Diagnostics (3 hrs)
 CLSC307 Urinalysis, Body Fluids, and Hemostasis (3 hrs)
 CLSC335 Clinical Immunology (4 hrs)
 CLSC401 Laboratory Management/Education (3 hrs)
 CLSC402 Clinical Chemistry (3 hrs)
 CLSC407 Hematology (4 hrs)
 CLSC432 Clinical Microbiology (3 hrs)
 CLSC433 Clinical Microbiology Laboratory (2 hrs)
 CLSC434 Immunohematology (3 hrs)
 CLSC455 Clinical Chemistry Laboratory (2 hrs)
 CLSC459 Clinical Microbiology Practicum II (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 12 hours

Program Total 124 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 †MATH105 or math placement level of four is a prerequisite for CHEM121/122.

Cytogenetics Curricula

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 35 hours

BIOL110 Introductory Biology (5 hrs)
 BIOL301 Genetics (3 hrs)
 BIOL305 Cell Physiology (4 hrs)
 †CHEM121/122 General Chemistry I with lab (4 hrs)
 CHEM123 General Chemistry II (3 hrs)
 CHEM124 General Chemistry II Laboratory (1 hr)
 CHEM270 Survey of Organic Chemistry (4 hrs)
 CHEM271 Organic Chemistry Laboratory (1 hr)
 CHEM351 Foundations of Biochemistry I (4 hrs)
 ZOOL404 Mammalian Histology (3 hrs)

One course from the following:
 MATH170 Elementary Statistics (3 hrs)
 SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements 50 hours

CLSC200 Clinical Laboratory Techniques (3 hrs)
 CLSC300 Molecular Diagnostics (3 hrs)
 CLSC335 Clinical Immunology (4 hrs)
 CLSC401 Laboratory Management/Education (3 hrs)
 CLSC407 Hematology (4 hrs)
 CLSC432 Clinical Microbiology (3 hrs)
 CLSC433 Clinical Microbiology Laboratory (2 hrs)
 CLSC410/411 Cytogenetics, Clinical Internship I-II (28 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 7 hours

Program Total 132 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 †MATH105 or math placement level of four is a prerequisite for CHEM121/122.

Histotechnology Curricula

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 34 hours

BIOL110 Introductory Biology (5 hrs)
 †CHEM121/122 General Chemistry I with lab (4 hrs)
 CHEM123 General Chemistry II (3 hrs)
 CHEM124 General Chemistry II Laboratory (1 hr)
 CHEM270 Organic Chemistry (4 hrs)
 CHEM271 Organic Chemistry Laboratory (1 hr)
 CHEM351 Foundations of Biochemistry I (4 hrs)
 ZOOL201 Human Anatomy and Physiology I (3 hrs)
 ZOOL202 Human Anatomy and Physiology II (3 hrs)
 ZOOL404 Mammalian Histology (3 hrs)

One course from the following:
 MATH170 Elementary Statistics (3 hrs)
 SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements 53 hours

CLSC200 Clinical Laboratory Techniques (3 hrs)
 CLSC300 Molecular Diagnostics (3 hrs)
 CLSC307 Urinalysis, Body Fluids and Hemostasis (3 hrs)
 CLSC335 Clinical Immunology (4 hrs)
 CLSC401 Laboratory Management/Education (3 hrs)
 CLSC407 Hematology (4 hrs)
 CLSC432 Clinical Microbiology (3 hrs)
 CLSC433 Clinical Microbiology Laboratory (2 hrs)
Select either Option I or II:

Option I
 CLSC405/406 Cytotechnology Clinical Internship (28 hrs)

Option II
 CLSC416 Basic Histotechnology and Histochemical Staining Methods (12 hrs)
 CLSC417 Basic Electron Microscopy (8 hrs)
 CLSC418 Immunohisto-Cytochemistry (4 hrs)
 CLSC419 Internship Special Histotechnology Techniques (4 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total 127 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 †MATH105 or math placement level of four is a prerequisite for CHEM121/122.

Dietetics Major

This specialized educational program, accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, integrates academic study with professional practice experience in a coordinated program in dietetics. Upon completion of the bachelor of science degree in dietetics, students qualify for membership in the American Dietetic Association and/or are eligible to take the Credentialing Examination for Registered Dietitians. Excellent career opportunities for dietitians are available in hospitals and other health care facilities; in community agencies; in industrial, University and school food service programs; in business; in teaching; in research; or in private practice.

This is a second admissions program with both online and on-campus delivery methods. Both programs begin in fall of the junior year. Please be aware that admission to the University is not a guarantee of entry into the dietetics program. Students interested in the on-campus cohort must submit program applications by Jan. 15 of their sophomore year for entrance into the professional phase of the program the following fall semester. Students interested in the online cohort are encouraged to visit the Continuing

Education web site (www.emuonline.edu) for the application deadline. In addition, prospective students can print the application and a fact sheet to share with potential preceptors.

The applicants for either delivery method must meet the following requirements to be considered for the professional phase of the program:

1. Junior standing achieved by completing 56 or more credit hours or equivalent.
2. Minimum GPA of 2.75.
3. Satisfactory completion (C or above) of the following courses prior to entrance into the professional phase of the program: BIOL105 Introductory Biology for Non-majors, CHEM121/122 General Chemistry I with lab, CHEM270 Survey of Organic Chemistry, CHEM351 Survey of Biochemistry, DTC108 Careers and Nutrition in Dietetics, DTC202 Principles of Human Nutrition, DTC251 Experimental Foods, IHHS260 Aging to Infancy, MICR328 Introductory Microbiology, PSY101 General Psychology SOCL250 Quantitative Applications in Sociology, and SPMD269 Anatomy and Physiology for Dietetics or ZOOL326 Human Physiology and AHPR200 Medical Terminology.

Application forms that describe the requirements in more detail may be obtained from the College of Health and Human Services advising center at 734.487.0918, or accessed online at www.emuonline.edu. The availability of clinical facilities limits the number of students admitted to each class. Therefore, a screening procedure is used to select the most qualified students for the available positions in the program. Academic status, letters of recommendation and a personal statement are considered in this screening procedure.

Students accepted into the dietetics program who desire to substitute courses taken at other colleges and/or universities for the 300- and 400-level dietetics courses are accepted at the discretion of the program faculty. A theoretical and/or practical examination may be required. Proven prior learning may be accepted with alternative activities assigned in substitution.

Criteria for continuance in the professional phase of the program are as follows:

1. Students receive a C grade or better in any required course in science and major courses after being admitted to the program.
2. A letter grade of D (D+, D or D-) in one required course automatically warns the student of difficulty and the need for academic counseling. Automatic dismissal from the dietetics program occurs when the student receives letter grades of:
 - D's (D+, D D-) in any of the following:
 - any two dietetics courses (DTC prefix), or
 - any two required science or management courses, or
 - any one dietetics course, and one required science or management course.
 - E's in one dietetics course or one science or management course.
3. Opportunity to continue in the dietetics program is contingent upon:
 - retaking the dietetics, science or management courses in which a letter grade of D was earned and receiving a final grade of at least a C;
 - retaking the dietetics science or management courses in which a letter grade of E was earned and receiving a final grade of at least a C;
 - and readmission into the dietetics program, based on availability of an open position.
4. In preparing to assume professional careers in dietetics, students are expected to assume responsibility for their learning, to support the ethics and standards of practice of their profession and to value honesty in the fulfillment of scholarly and professional endeavors. The department reserves the right to retain only those students who, in the judgment of the faculty, satisfy the requirements of scholarship and practice competence and personal integrity suitable to dietetics.

Registration in Dietetics

The American Dietetic Association issues a certificate of membership in dietetics upon successful completion of the coordinated dietetics curriculum. Successful completion of the national examination administered by the American Dietetic Association results in professional registration status with the American Dietetic Association

An active articulation agreement exists between this program and the Owens Community College. See page 11 for further details

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 28 hours
 †BIOL105 Introductory Biology for Non-majors (4 hrs)
 †CHEM121/122 General Chemistry I with lab (4 hrs)
 †CHEM270 Organic Chemistry (4 hrs)
 †CHEM351 Survey of Biochemistry (4 hrs)
 †MICR328 Introductory Microbiology (3 hrs)
 †PSY101 General Psychology (3 hrs)
 ZOOL326 Human Physiology (3 hrs)
 SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements..... 57 hours
 DTC108 Careers in Nutrition and Dietetics (2 hrs)
 DTC202 Principles of Human Nutrition (3 hrs)
 DTC251 Experimental Foods (4 hrs)
 DTC302 Nutrient Metabolism: Macronutrients (3 hrs)
 DTC330 Nutrition Therapy I (3 hrs)
 DTC331 Nutrition Therapy I Experience (2 hrs)
 DTC350 Food Systems Management I (3 hrs)
 DTC351 Food Systems Management I Experience (2 hrs)
 DTC370 Nutrition Therapy II (3 hrs)
 DTC371 Nutrition Therapy II Experience (4 hrs)
 DTC372 Nutrition of the Life Cycle (3 hrs)
 DTC375 Complimentary and Alternative Medicine (3 hrs)
 DTC435 Seminar in Dietetics (2 hrs)
 DTC430 Nutrition Therapy III (3 hrs)
 DTC431 Nutrition Therapy III Experience (4 hrs)
 DTC450 Food Systems Management II (1 hr)
 DTC451 Food Systems Management II Experience (4 hrs)
 DTC470 Nutrition Therapy IV (1 hr)
 DTC471 Nutrition Therapy IV Experience (4 hrs)
 MGMT388 Introduction to Entrepreneurship (3 hrs)

University Electives.....3 hrs
Three hours from the following:
 IHHS277/278/279 Special Topics (3 hrs)
 IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)
 IHHS377/371/379 Special Topics (3 hrs)

Minor Requirements0 hours
No minor is required

Program Total..... 128 hours

Note:
 Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
 †Prerequisites are to be taken prior to acceptance into the professional phase of the program.

Health Administration Program

The program in health administration emphasizes the rapidly changing forms of health care delivery, health care reform, health care for the indigent and services to special populations, such as uninsured workers, the homeless and prisoners. Student writing, publication and opportunities for research are central to the program's mission.

Clinical Affiliations

The health administration program is closely affiliated with the American Academy of Medical Administrators (AAMA) and the American College of Health Executives (ACHE). The Health Administration Student Organization is a student chapter of the American College of Health Care Executives. Internship opportunities are an essential component in the curriculum of the program. The following organizations are representative of those in which health administration majors acquire field experience:

Alzheimer's Disease and Related Disorders Association, Southfield, MI
 Arbor Hospice, Ann Arbor
 Chelsea Community Hospital, Chelsea, MI
 City of Detroit, Bureau of Substance Abuse Services, Detroit
 Detroit Osteopathic Hospital Corporation, Detroit
 Detroit Receiving Hospital, Detroit
 Garden City Osteopathic Hospital, Garden City, MI
 Gift of Life
 Health Alliance Plan of Michigan, Detroit
 Henry County Hospital, Napoleon, Ohio
 Henry Ford Hospital, Detroit
 Henry Ford Village
 Hospice of Washtenaw, Ann Arbor
 Laurel Home Health Care Centers, Ypsilanti
 M-Care, Ann Arbor
 McAuley-McPheerson Health Care, Howell, MI
 Michigan Blue Shield and Michigan Blue Cross, Detroit
 Michigan Insurance Bureau, Lansing, MI
 Michigan Department of Corrections
 Michigan Department of Mental Health
 Michigan Department of Public Health
 Munson Memorial Hospital, Traverse City
 Milan Federal Correctional Institution, Milan, MI
 Munson Memorial Hospital, Traverse City, MI
 Oakland County Department of Public Health
 Snow Health Center
 St. John Hospital, Detroit
 St. Joseph Mercy Hospital, Ann Arbor
 St. Mary's Hospital, Saginaw, MI
 Seaway Hospital, Trenton, MI
 Springfield Hospital, Springfield, Vt.
 Traverse City Osteopathic Hospital, Traverse City, MI
 Trinity Health Care
 University of Michigan Hospitals, Ann Arbor
 Visiting Nurse Association of Huron Valley, Ann Arbor
 Washtenaw County Community Mental Health, Ann Arbor
 Wayne County Medical Examiner's Office, Detroit

Health Administration Curriculum

The curriculum concentrates on the principles and processes utilized in the field of health administration and management. The program is designed to prepare those seeking a career in the administrative sector of the health care delivery system in any of its forms. It also is appropriate for those already working in the health care field in some other capacity but wishing to redirect their career toward the area of health administration. Practicing health administrators without previous formal education in the field also may find this program beneficial for career advancement.

All students must take a one-semester internship during their junior or senior year unless waived by the program director due to significant administrative experience. No outside minor is required. However, many students elect the gerontology minor. Other minors that fit well with the

health administration major include the American Humanics Certificate in nonprofit management.

A degree completion track, health services management, has been established for persons with clinical associate degrees from accredited community colleges who have had five or more years of experience subsequent to that of degree completion. Associate degree trained nurses, respiratory therapists and others interested in the degree completion option in health services management should contact the program director. Successful completion of the degree completion track leads to the same degree as the regular program major.

An active articulation agreement exists between this program and Henry Ford Community College, Schoolcraft College and Washtenaw Community College. See page 11 for further details.

A B.S. in health administration articulation agreement has been established with the programs of radiography, nursing and dental assisting at Washtenaw Community College and a B.S. in health administration articulation agreement with health information technology at Schoolcraft College, which permit graduates of these two-year degree programs to complete their bachelor's degree in two years, or the equivalent of four full-time semesters at Eastern Michigan University, culminating with a degree in health administration. Unlike the health services management track, which is a generic degree for completion for clinicians with a two-year clinical degree, these articulations provide selected transfer students with an efficient degree completion curriculum that fits into a traditional four-year undergraduate schedule. Graduates of the programs in radiography, nursing and dental assisting at Washtenaw Community College and health information technology at Schoolcraft College should contact the program director (program in health administration) or their community college academic adviser for complete details about these degree completion opportunities.

A minor in health administration is available to undergraduate students at Eastern Michigan University. The curriculum for the minor in health administration includes 20 to 22 hours. Students interested in the minor should contact the program in writing and meet with the program's minor curriculum adviser.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements..... 13-16 hours

BIOL105 Introductory Biology for Non-majors (4 hrs)

ECON201 Principles of Macroeconomics (3 hrs)

ECON202 Principles of Microeconomics (3 hrs)

One course from the following:

MATH118 Linear Models and Probability (3 hrs)

SOCL250 Quantitative Applications in Sociology (3 hrs)

If student has taken MATH118, chose one course from the following:

DS265 Business Statistics I (3 hrs)

ECON310 Economic Statistics (3 hrs)

PSY205 Quantitative Methods in Psychology (3 hrs)

SOCL250 Quantitative Applications in Sociology (3 hrs)

Major Requirements 55 hours

Required Courses in Health Administration.....45 hours

HLAD305 The U.S. Health Care System (3 hrs)

HLAD307 Communication Effectiveness in Health Administration (3 hrs)

HLAD308 Ethical Dimensions of Health Care Delivery (3 hrs)

HLAD310 Administration of Health Care Organizations (3 hrs)

HLAD311 Management of Health Services (3 hrs)

HLAD312 Health Personnel Management and Development (3 hrs)

HLAD315 Data Analysis for the Health Sciences (3 hrs)

HLAD416 Health Planning (3 hrs)

HLAD417 Health Regulation (3 hrs)

HLAD418 Principles of Healthcare Finance Management (3 hrs)

HLAD420 Health Insurance and Reimbursement (3 hrs)

HLAD425 Decision Making for Health Administrators (3 hrs)

HLAD480 Internship Seminar in Health Administration (3 hrs)

HLAD488 Internship (6 hrs)

**Required Courses in
Associated Health Profession..... 4 hours**

- AHPR200 Medical Terminology (1 hr)
One course from the following:
HLAD401 Legal Issues in Health Care (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
PLSC301 The American Legal System (3 hrs)

**Required Courses in Business
Administration and Liberal Arts 6 hours**

- ACC240 Principles of Financial Accounting (3 hrs)
ECON436 Health Economics (3 hrs)

Minor Requirements0 hours
No minor is required.

University Elective Courses 13-16 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Health Services Management Track Curriculum

This is a degree completion track leading to the bachelor of science in health administration for persons holding an accredited associate's degree in a recognized health services or clinical discipline who have had five or more years of experience subsequent to that degree completion. Such disciplines include nursing, respiratory therapy or other specialized two-year programs of study.

For degree completion students in this curriculum, up to 22 credit hours may be awarded and credited toward the bachelor of science obligation of 124 credit hours on the basis of supervised clinical course work taken in the associate degree curriculum. These credits may be based on supervised clinical courses that have no exact equivalence at Eastern Michigan University. This is determined in consultation with the program director of the health administration program.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 30 hours
AHPR200 Medical Terminology (1 hr)
HLAD305 U.S. Health Care System (3 hrs)
HLAD308 Ethical Dimensions in Health Care Delivery (3 hrs)
HLAD310 Administration of Health Care Organizations (3 hrs)
HLAD311 Management of Health Care Services (3 hrs)
HLAD315 Research Methods and Data Analysis in Health Sciences (3 hrs)
HLAD401 Legal Issues in Health Care (3 hrs)
HLAD420 Health Insurance and Reimbursement (3 hrs)
HLAD425 Decision Making for Health Administrators (3 hrs)
Two hours of applicable transfer work from an associates degree.
One course from the following:
HLAD416 Health Planning (3 hrs)
HLAD417 Health Regulation (3 hrs)

Minor Requirements 21 hours
Minor in management for non-business majors is required.

University Elective Courses 33 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Occupational Therapy Program

Program of Study
Occupational therapy advising for occupational therapy-intent students is performed by the College of Health and Human Services Advising Center. After acceptance into the occupational therapy program, students are assigned a faculty advising team. All students in the professional program must meet with their advising team before registering each semester.

Certification in Occupational Therapy
The National Board for Certification in Occupational Therapy, Inc. (NBCOT) requires successful completion of all academic requirements and fieldwork experiences for candidates to be eligible for the national certification examination. A registered occupational therapist (OTR) is one who has passed the certification examination and has applied to the NBCOT for certification.

Combined Bachelor's-Master's Degree in Occupational Therapy

Established in 1941, Eastern Michigan University's Occupational Therapy Program has a long-standing tradition of excellence. The EMU OT Program provides competent and caring professionals to the local community as well as throughout the state of Michigan and across the nation.

The Bureau of Labor Statistics *Occupational Outlook Handbook*, 2006-2007 edition, is predicting a greater than average employment need for occupational therapists through at least 2014. This is based on the general population growth and the increasing demand for services for those aged 75 years and older who are requiring occupational therapy services to improve their quality of life. In addition, emerging practice areas for occupational therapists, for example, in such areas as driver rehabilitation and fall prevention, continue to develop. Hospitals employ a large number of occupational therapists, while employment in schools grows. Other work sites include, but are not limited to: rehabilitation facilities, long-term care facilities, camps, home health care and industry.

The 3+2 Program
Our innovative 3+2 program combines 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:*
- EDPS621 Statistical Applications in Educational Research (2 hrs)
 - EDPS651 Inferential Statistics (2 hrs)
 - 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 Quantitative Applications in Sociology (3 hrs)

Human Growth and Development

One course from the following:

EDPS325 Life Span Human Growth and Development (4 hrs)

IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)

2. Have a cumulative GPA of 2.75 or higher.
3. Completion of 80 hours of volunteer, work or service learning experience with individuals who have special needs in a variety of community settings such as home health agencies, schools, psychosocial clubhouses and rehabilitation clinics.
4. Completion of 90 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 written work (e.g., a paper, presentation or article). All prerequisite coursework and volunteer hours must be completed by Aug. 1 in order to begin the program in the following fall semester. Portfolios will be due for review Jan. 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 that all general education requirements completed. Please contact the SHS advising office at 734.487.0918 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 Honors College.

Scholarships

The Occupational Therapy Program offers a number of scholarships. For more information, contact the OT program at 734.487.2280. 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..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 27-29 hours

AHPR200 Medical Terminology (1 hr)

BIOL105 Introductory Biology for Non-majors (4 hrs)

EDPS621 Statistical Applications in Educational Research (2 hrs)

EDPS651 Inferential Statistics (2 hrs)

SOCL250 Quantitative Applications in Sociology (3 hrs)

ZOOL201 Human Anatomy and Physiology I (3 hrs)

ZOOL202 Human Anatomy and Physiology II (3 hrs)

ZOOL417 Neuroanatomy (3 hrs)

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)

One course from the following:

EDPS325 Life Span Human Growth and Development (4 hrs)

IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)

Major Requirements..... 66 hours

HLAD510 Medical Care Organization (3 hrs)

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)

OCTH516 Level I Community Fieldwork II (3 hrs)

OCTH517 Level I Community Fieldwork III (3 hrs)

OCTH519 Programming II (6 hrs)

OCTH540 Research Methods I (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)

Minor Requirements0 hours

No minor is required.

University Elective Courses 21 hours

OCTH100 Orientation to Occupational Therapy, OCTH201

Exploring Occupational Performance in the Community and

OCTH350 Exploring Occupational Performance in the Context of

a Disability are strongly recommended. Please see an intent adviser for further recommended courses.

Program Total..... 154-156 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Therapeutic Recreation Curriculum

The therapeutic recreation curriculum leads to a bachelor of science degree in therapeutic recreation. Graduates from this program may apply for national certification as a certified therapeutic recreation specialist.

This curriculum consists of a minimum of 48 hours of general education, a minimum of 63 credit hours of therapeutic recreation required courses. The therapeutic recreation student must complete 250 hours of clinical and/or paid therapeutic recreation experience before taking a full-time 15-week, 600-hour practicum. The student must also file for candidate status one semester prior to enrolling in the practicum. No outside minor is required.

Students planning admission to the therapeutic recreation major must officially enroll in the program at the Academic Advising Center and complete an application for program admission at 363 Marshall. Criteria for admission into the therapeutic recreation major are:

1. Application for program admission;
2. Interview with the therapeutic recreation faculty.

Criteria for entry into THRC449 Therapeutic Recreation Practicum are:

1. Obtain a minimum of 2.5 GPA overall and 2.75 GPA in all major core and required courses;
2. Complete 250 hours of verified volunteer or paid work experience in four or more therapeutic recreation service agencies serving people with disabilities;
3. Complete 100 percent of all academic courses.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Recommended Courses..... 11 hours

CTAC227 Interpersonal Communications (3 hrs)

CTAR222 Drama and Play in Human Experience (3 hrs)

IHHS226 Computers for Health and Human Services (3 hrs)
PEGN210 Lifetime Wellness and Fitness (2 hrs)

Major Requirements..... 61-63 hours

- AHPR200 Medical Terminology (1 hr)
- COUN450 An Introduction: Counseling Concepts and Skills (3 hrs)
- HLAD305 The U.S. Health Care System (3 hrs) or HLAD312 Health Personnel Management and Development (3 hrs)
- PHED200 Anatomy and Physiology (5 hrs)
- PSY360 Abnormal Psychology (3 hrs)
- SPMD280 Pharmacology for Sports Medicine (2 hrs)
- THRC100 Orientation to Therapeutic Recreation (3 hrs)
- THRC200 Recreation for Persons with Disabilities (3 hrs)
- THRC250/251/252 Field Work in Recreation/Therapeutic Recreation (1/1/1 hr)
- THRC290 Quality Improvement: Research Methods in Health Care (3 hrs)
- THRC300 Principles of Therapeutic Recreation (3 hrs)
- THRC320 Leisure Education (3 hrs)
- THRC340 Therapeutic Recreation Processes I (3 hrs)
- THRC360 Therapeutic Recreation Program Planning (3 hrs)
- THRC400 Therapeutic Recreation Process II (3 hrs)
- THRC430 Issues in Therapeutic Recreation (3 hrs)
- THRC449 Therapeutic Recreation Practicum (8 hrs)
- Choose one from the following:*
- THRC180 Activity Analysis and Adaptation (2 hrs)
- THRC481 Adapted Aquatics (2 hrs)
- Choose one from the following:*
- THRC310 Leisure and Aging (3 hrs)
- THRC330 Therapeutic Recreation: Substance Abuse (3 hrs)
- Choose one from the following:*
- EDPS325 Life Span Human Growth and Development (4 hrs)
- IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)

University Elective Courses 10-12 hours

Minor Requirements 0 hours
No minor is required.

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Health Administration Minor

Minor Requirements 14-15 hours

- AHPR200 Medical Terminology (1 hr)
- HLAD310 Administration of Health Care Organizations (2 hrs)
- HLAD311 Management of Health Services (3 hrs)
- HLAD420 Health Insurance and Reimbursement (3 hrs)
- HLAD401 Legal Issues in Health Care (3 hrs)
- One course from the following:*
- HLAD300 Health Care Issues (2 hrs)
- HLAD305 The U.S. Health Care System (3 hrs)

Elective Courses..... 6 hours

- Two courses from the following:*
- AAS351 The Social Context of African American Health (3 hrs)
- GERT404 Gerontology Interdisciplinary Seminar (3 hrs)
- HLAD250 Introduction to Public Health (3 hrs)
- HLAD308 Ethical Dimensions in Health Care Delivery (3 hrs)
- HLAD315 Research Methods and Data Analysis in Health Sciences (3 hrs)
- HLAD416 Health Planning (3 hrs)
- HLAD417 Health Regulation (3 hrs)
- HLAD421 Managed Care (3 hrs)
- HLAD425 Decision-Making for Health Administrators (3 hrs)
- HLAD460 Long-Term Care Administration (3 hrs)

- HLAD479 Special Topics (3 hrs)
- SWRK431 Substance Abuse (3 hrs)
- SWRK438 The Interdisciplinary Health Care Team (3 hrs)

Minor Total..... 20-21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Human Nutrition Minor

This non-teaching minor benefits students enrolled in the majors of: nursing, sports medicine, hotel and restaurant management, occupational therapy, education, psychology and biology.

Required Courses 15 hours

- DTC358 Food and Culture (3 hrs)
- DTC372 Nutrition of the Life Cycle (3 hrs)
- DTC375 Complementary and Alternative Medicine (3 hrs)
- DTC430 Nutrition Therapy III (3 hrs)
- One course from the following:*
- DTC202 Principles of Human Nutrition (3 hrs)
- DTC203 Nutrition for Health Professionals (3 hrs)
- DTC204 Sports Nutrition (3 hrs)

Restricted Elective Courses 5 hours

- Five hours from the following:*
- DTC108 Careers in Nutrition and Dietetics (2 hrs)
- DTC155 Fundamentals of Healthy Lifestyles (2 hrs)
- DTC251 Experimental Foods or HRM180 (3-4 hrs)
- DTC302 Nutrient Metabolism (3 hrs)
- HLED120 Healthful Living (3 hrs)
- HLED302 From Host to Host: Communicable Diseases (1 hr)
- HLED390 Drug Use and Abuse (3 hrs)
- HLED402 Selecting Health Products and Services (3 hrs)
- HLED420 Health and Aging (3 hrs)
- PHED209 Bio Fitness (2 hrs)
- THRC310 Leisure and The Older Adult (3 hrs)

Minor Total..... 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

School of Nursing

Address: 311 Marshall Building
Phone: 734.487.2310
E-mail: chhs_nursing@emich.edu
Web site: www.emich.edu/nursing

See page 337 for course descriptions.

Nursing Major

Admission to the University and indication of an intent to enter the nursing curriculum do not guarantee admission to the nursing program. Admission to the nursing program is a separate application and admission process.

Prospective students should contact the College of Health and Human Services Advising Center at 734.487.0918, early in their freshmen year. The application will specify exact requirements, deadline dates and expected notification times.

Applicants are eligible for consideration for selection into the nursing program upon completion of the following prerequisite courses with a grade of C or better in each course and a minimum cumulative GPA of 2.8

in these courses. A criminal background check is required before admission is confirmed.

CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
ENGL121 Composition II: Researching the Public Experience or equivalent (3 hrs)

PSY101 General Psychology (3 hrs)

One course from the following:

SOCL105 Introductory Sociology (3 hrs)

ANTH135 Introduction to Cultural Anthropology (3 hrs)

One of the following two course sequences (6-8 hrs)

SPMD201/ATTR201 Human Anatomy for Sports
Medicine (3 hrs)

SPMD202/ATTR202 Human Physiology for Sports
Medicine (3 hrs)

or

ZOOL201 Human Anatomy and Physiology I (3 hrs)

ZOOL202 Human Anatomy and Physiology II (3 hrs)

Any math requirement to meet General Education requirements

One course from the following:

IHHS260 Aging to Infancy (3 hrs)

EDPS325 Life Span Human Growth and Development (4 hrs)

Required prerequisite courses are subject to change.

Students should plan carefully for the demanding nature of the nursing program and the extensive clinical hours required. The program requires six sequential semesters of study.

Once admitted to the EMU nursing program, students must complete all nursing (NURS) courses, DTC203 Nutrition for Health Professionals and MICR328 Introductory Microbiology or CLSC432 Clinical Microbiology with a grade of C or better within a period of six calendar years to be considered eligible for graduation. Nursing courses must be taken in the sequence specified by the School of Nursing.

The University may give credit for nursing courses taken at another college or University; however, the school reserves the right to make the final decision on course substitution based on examination of course materials. The school also reserves the right to make changes in the program as needed.

Academic and Professional Integrity

Students are expected to assume responsibility for their learning, to support the ethics and goals of the profession and to value honesty in the fulfillment of scholarly and professional endeavors. Students must abide by the University code of conduct. Students who violate the University code of conduct will be subject to appropriate disciplinary action.

The School of Nursing recognizes its responsibilities to the public and to the nursing profession. Students and faculty must promote academic and professional integrity and take action when a violation of such integrity occurs. The school reserves the right to retain only those students who, in the judgment of the faculty, satisfy the requirements of scholarship, clinical competence and professional and personal integrity suitable for nursing.

Clinical Learning Experience

Fieldwork in nursing is provided through clinical learning experiences under the supervision of faculty in a variety of health agencies such as ambulatory care settings, acute care settings, medical centers, community hospitals, public schools, nursing homes, county public health agencies and home health care agencies. **Students are expected to provide their own transportation to clinical agencies.**

Following receipt of the bachelor of science in nursing degree (B.S.N.), students are eligible to sit for the national nursing licensure examination (NCLEX-RN).

The nursing program is approved by the State of Michigan Board of Nursing and it is accredited by the Commission on Collegiate Nursing Education.

B.S.N. Completion

Nurses who are licensed to practice nursing in the State of Michigan and wish to complete a bachelor of science in nursing degree are eligible for consideration for admission. Registered nurses must apply to and be accepted by the University. In addition, registered nurse applicants must:

1. Meet with an assigned adviser;

2. Show transcripts demonstrating graduation from a diploma or associate degree program of nursing;
3. Show a current unrestricted license to practice nursing in Michigan; and
4. Show submission of a TOEFL score of 500/173 (paper/computer) or above for nurses for whom English is a second language. A MELAB test is also acceptable.

All information related to academic and professional integrity and clinical learning experiences also apply to R.N./B.S.N. completion students.

The School of Nursing offers courses for registered nurses at off-campus sites. Please obtain current information at www.emich.edu/nursing.

The School of Nursing has established articulation agreements to transfer credits from several colleges. The following programs have articulation agreements with the colleges listed below. For more information, please contact the school director or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

B.S.N. Nursing Completion — Henry Ford Community College

B.S.N. Nursing Completion — Lansing Community College

B.S.N. Nursing Completion — Monroe County Community College

B.S.N. Nursing Completion — Schoolcraft College

B.S.N. Nursing Completion — Washtenaw Community College

B.S.N. Nursing Completion — Wayne County Community College District

See page 11 for further details.

Nursing Major—B.S.N.

This curriculum leads to the bachelor of science in nursing (B.S.N.) degree and requires the following courses to complete the 124 hours needed for graduation. Curriculum revisions may result in changes in nursing courses listed below, as well as prerequisite courses. Potential nursing students should consult with the School of Nursing and/or the College of Health and Human Services Advising Center for the most accurate information at 734.487.0918.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 25-26 hours

CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)

DTC203 Nutrition for Health Professionals (3 hrs)

PSY101 General Psychology (3 hrs)

One course from the following:

CLSC432 Clinical Microbiology (3 hrs)

MICR328 Introductory Microbiology (3 hrs)

One course from the following:

EDPS325 Life Span Human Growth and Development (4 hrs)

IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)

One of the following two course sequences (6 hrs)

SPMD201/ATTR201 Human Anatomy for Sports

Medicine (3 hrs)

SPMD202/ATTR202 Human Physiology for Sports

Medicine (3 hrs)

or

ZOOL201 Anatomy and Physiology I (3 hrs)

ZOOL202 Anatomy and Physiology II (3 hrs)

One course from the following:

ANTH135 Introduction to Cultural Anthropology (3 hrs)

SOCL105 Introductory Sociology (3 hrs)

Major Requirements..... 60 hours

NURS208 The Art and Science of Nursing I (2 hrs)

†NURS209 The Art and Science of Nursing I Laboratory (3 hrs)

NURS220 Health Assessment (2 hrs)

- NURS250 The Art and Science of Nursing II (2 hrs)
- †NURS251 The Art and Science of Nursing II Laboratory (3 hrs)
- NURS260 Pathophysiology (4 hrs)
- NURS270 Pharmacology (3 hrs)
- NURS275 Essentials of Professional Nursing Practice I (3 hrs)
- NURS304 Nursing Care of Childbearing Families (2 hrs)
- †NURS305 Nursing Care of Childbearing Families Laboratory (3 hrs)
- NURS306 Child/Family Health Nursing (2 hrs)
- †NURS307 Child Family Health Nursing Laboratory (3 hrs)
- NURS330 Adult Health Nursing I (2 hrs)
- †NURS331 Adult Health Nursing I Laboratory (3 hrs)
- NURS350 Psychiatric/Mental Health Nursing (2 hrs)
- †NURS351 Psychiatric/Mental Health Nursing Laboratory (3 hrs)
- NURS372 Nursing Research (2 hrs)
- NURS375 Essentials of Professional Nursing Practice II (3 hrs)
- NURS404 Adult Health Nursing II (2 hrs)
- †NURS405 Adult Health Nursing II Laboratory (3 hrs)
- NURS450 Community Health Nursing (2 hrs)
- †NURS451 Community Health Nursing Practice (3 hrs)
- NURS475 Essentials of Professional Nursing Practice III (3 hrs)

Program Total..... 125-126 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†A lab fee of \$15 per credit hour is assessed on each clinical laboratory course.

Nursing Major—B.S.N. Second Degree

The second degree-BSN (SD-BSN) program sequence provides and opportunity for individuals who have a baccalaureate degree in a discipline other than nursing to complete a BSN in 16 months of full-time study if admitted to the program. The same admission criteria apply as for the traditional BSN program, plus three other prerequisite courses. Those three courses (pathophysiology, microbiology and therapeutic human nutrition) must be completed with a C or better before the admitted student is allowed to progress to the clinical nursing courses.

Nursing Major — B.S.N. Completion

Articulation agreements exist between this program and the following schools:

- B.S.N. Nursing Completion** — Henry Ford Community College
- B.S.N. Nursing Completion** — Lansing Community College
- B.S.N. Nursing Completion** — Monroe County Community College
- B.S.N. Nursing Completion** — Schoolcraft College
- B.S.N. Nursing Completion** — Washtenaw Community College
- B.S.N. Nursing Completion** — Wayne County Community College District

See page 11 for further details.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 25-26 hours
CHEM120 Fundamentals of Organic and Biochemistry (4 hrs)
PSY101 General Psychology (3 hrs)
One course from the following:
CLSC432 Clinical Microbiology (3 hrs)
MICR328 Introductory Microbiology (3 hrs)

- One course from the following:*
EDPS325 Life Span Human Growth and Development (4 hrs)
IHHS260 Aging to Infancy (3 hrs)
- One course from the following:*
DTC202 Principles of Human Nutrition (3 hrs)
DTC203 Nutrition for Health Professionals (3 hrs)
DTC204 Sports Nutrition (3 hrs)
- One of the following two course sequences (6 hrs)*
SPMD201/ATTR201 Human Anatomy for Sports Medicine (3 hrs)
SPMD202/ATTR202 Human Physiology for Sports Medicine (3 hrs)
- or*
ZOOL201 Anatomy and Physiology I (3 hrs)
ZOOL202 Anatomy and Physiology II (3 hrs)
- One course from the following:*
ANTH135 Introduction to Cultural Anthropology (3 hrs)
SOCL105 Introductory Sociology (3 hrs)

Major Requirements..... 60 hours
Required Courses..... 55 hours

- NURS220 Health Assessment (2 hrs)
- NURS260 Pathophysiology (4 hrs)
- NURS270 Pharmacology (3 hrs)
- NURS275 Essentials of Professional Nursing Practice I (3 hrs)
- NURS372 Nursing Research (2 hrs)
- NURS375 Essentials of Professional Nursing Practice II (3 hrs)
- NURS450 Community Health Nursing (2 hrs)
- †NURS451 Community Health Nursing Practice (3 hrs)
- NURS475 Essentials of Professional Nursing Practice III (3 hrs)
- NLN Exams or State of Michigan RN license (30 hrs)

Restrictive Elective Courses 5 hours
Five hours in nursing

Program Total..... 125-126 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†A lab fee of \$15 per credit hour is assessed on each clinical laboratory course.

School of Social Work

Address: 317 Marshall
Phone: 734.487.0393
E-mail: bsw_program@emich.edu
Web site: www.emich.edu/sw

See page 367 for course descriptions.

The Eastern Michigan University Social Work Program is committed to the empowerment of poor, oppressed, vulnerable and undeserved populations; the creation of social welfare policy based on a strengths perspective; the advancement of community problem solving; and leadership in organizations and communities.

The undergraduate social work program offers students a general foundation of knowledge, values and skills integral to entry-level professional social work careers. It includes a fully accredited major in social work. The school also offers a master's in social work (for more information please consult the graduate catalog).

The school supports Social Welfare Action (SWA) our student organization. Members of the student organizations sponsor social activities and

community service projects and serve on faculty committees. All social work students are encouraged to be involved in student organizations.

The School of Social Work has established articulation agreements to transfer credits from several schools. The following programs have articulation agreements with the colleges listed below. For more information, please contact the school director or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.S. Social Work — Jackson Community College
- B.S. Social Work — Monroe County Community College
- B.S. Social Work — Oakland Community College
- B.S. Social Work — Schoolcraft College
- B.S. Social Work — Washtenaw Community College
- B.S. Social Work — Wayne County Community College

See page 11 for further details

Admissions

Students who wish to become majors in the School of Social Work need to formally apply while enrolled in SWRK251 prior to taking their first 300-level social work class. Successful applicants will:

1. Have a minimum 2.3 GPA;
2. Have a post-high school minimum of 40 hours volunteer, internship or work-experience at a social welfare agency or organization that is documented by a reference letter from the supervisor of that experience;
3. Attain a C or better in SWRK120, SWRK222 and SWRK251;
4. Complete a written essay on their interest in social work as a career; and
5. Complete course plan of study

Field Experience

The required field experience is two semesters in field placement in a social agency designated by the social work faculty as a training agency for EMU students. This placement component is taken during students' senior year, either fall and winter terms or winter and spring-summer terms. Students will be in the field 16 hours per week for the semesters in the field placement cycle. Open only to social work majors. Eligibility for field placement includes the following:

1. All students should obtain and read a copy of the department field placement policies.
2. Students must have a 2.3 overall GPA at the time of entering and during field placement (no probation).
3. At least a C in each required social work class.
4. Students must have completed all required social work courses through the 300-level before beginning field placement and must have senior standing.
5. A field placement application must be obtained, completed by the student and returned to the field placement coordinator by the date set by the field coordinator or by March at the latest if placement is desired fall/winter and by October for the following winter/spring/summer terms. Each student is required to attend an informational meeting at the announced time in the semester their field application is due. The field placement coordinator will arrange all field placements. Students may not recruit their own field placement sites.
6. Students must take field placement in consecutive semesters (i.e., fall and winter or winter and spring/summer terms). Students enrolling for the first semester of field placement (SWRK488 Field Experience I) must take SWRK408 Social Work Practice II concurrently. Students enrolling for the second term of field placement (SWRK489 Field Experience II) must take SWRK409 Social Work Practice III concurrently (see number 11).
7. Transportation: agencies are located within a 60-mile radius of EMU. Students will need their own transportation. In a few cases, car pools can be arranged with participants sharing expenses. Students must have appropriate automobile insurance coverage.
8. Students must receive a grade of C or better in their first semester field placement and practice classes (SWRK408 Social Work Practice II and SWRK488 Field Experience I) to be eligible to continue in the second semester (SWRK409 Social Work Practice III and SWRK489 Field Experience II). Students who receive a grade of E in either semester of field

placement (SWRK488/489 Field Experience I-II) must obtain special departmental permission to repeat the course.

9. Academic credit for life experience and previous work experience will not be granted in lieu of field placement.
10. Students in field placement must adhere to professional standards as set forth in the Code of Ethics of the National Association of Social Workers.
11. With permission of a social work adviser students may take senior-level social work practice courses prior to field placement enabling part-time students to complete their degree.

Accreditation

Accreditation is by the Council on Social Work Education, the accrediting body for the baccalaureate and the master's degree social work curricula. Accreditation reflects a standard of high quality that the program meets. Students who graduate from an accredited undergraduate program may obtain advanced standing in some graduate schools of social work. Accredited programs may not substitute life experience or social work courses from nonaccredited programs.

Honors Program in Social Work

Students with excellent academic records who are majoring in social work may apply to pursue the honors program in social work. Before pursuing the Social Work Honors Program, students must be admitted to and in good standing in the Honors College. The Social Work Honors Program consists of taking 12 credits of honors course work in social work. For more information, contact either the Social Work Honors Program adviser or the Honors College.

Social Work Curriculum

The social work curriculum leads to a bachelor of science degree in social work and requires the following courses to complete the 124 hours needed for graduation. No outside minor is required. Curriculum revisions may result in changes in social work courses listed below as well as prerequisite courses. Potential social work students should consult with the School of Social Work for the most accurate information.

The Social Work Program requires that students take two cross-cultural courses and a course related to women. Therefore, in addition to the University's cross-cultural/international studies requirement, social work majors must take an additional cross-cultural course as well as a course related to women (which may be chosen from the list of General Education cross-cultural/international studies courses or be another course on diversity approved by the Department of Social Work). If the General Education cross-cultural/international studies requirement is met with a course related to women, then the social work program requires two additional cross-cultural courses (not related to women).

An active articulation agreement exists between this program and Jackson Community College, Monroe County Community College, Oakland Community College, Schoolcraft College, Washtenaw Community College and Wayne County Community College

See page 11 for further details

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements..... 31-32 hours

- ANTH135 Introduction to Cultural Anthropology (3 hrs)
- BIOL105 Introductory Biology for Non-majors (4 hrs)
- PLSC112 American Government (3 hrs)
- PSY101 General Psychology (3 hrs)
- PSY360 Abnormal Psychology (3 hrs)
- SOCL105 Introductory Sociology (3 hrs)
- SOCL250 Quantitative Applications in Sociology (3 hrs)
- SOCL304 Methods in Sociological Research (3 hrs)

One course from the following:

- MGMT386 Organizational Behavior and Theory (3 hrs)
- SOCL462 Complex Organizations (3 hrs)

One course from the following:

- EDPS325 Life Span Human Growth and Development (4 hrs)
- IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)

Major Requirements..... 52 hours

Required Courses: Pre-Major 7 hours

- SWRK120 Introduction to Social Work Services and Professional Roles (3 hrs)
- SWRK222 Social Welfare Policies and Services (3 hrs)
- SWRK251 Self-Assessment and Development for Social Work (1 hr)

Required Courses: Major 36 hours

- SWRK315 Theoretical Bases for Social Work Practice (3 hrs)
- SWRK317 Social Work Practice I (3 hrs)
- SWRK360 Practice Issues with People of Color (3 hrs)
- SWRK388 Preprofessional Practicum (3 hrs)
- SWRK403 Practice Issues with Women (3 hrs)
- SWRK405 Analysis and Change of Social Welfare Policies (3 hrs)
- SWRK408 Social Work Practice II (3 hrs)
- SWRK409 Social Work Practice III (3 hrs)
- SWRK488 Field Experience I (6 hrs)
- SWRK489 Field Experience II (6 hrs)

Restricted Elective Courses: Cross Cultural or International Studies..... 9 hours

Nine hours of cross cultural, international studies and courses related to women selected in consultation with the social work adviser.

Minor Requirements 0 hours

No minor is required.

University Elective Courses 0-1 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Social Work Minor

This minor is compatible with disciplines where the college graduate will be in a helping role with people.

Required Courses 6 hours

- SWRK120 Introduction to Social Work Services and Professional Roles (3 hrs)
- SWRK222 Social Welfare Policies and Services (3 hrs)

Elective Courses..... 14-15 hours

14 to 15 hours selected in consultation with a social work adviser from social work elective courses.

Minor Total..... 20-21 hours

Gerontology

See page 303 for course descriptions.

The gerontology minor is administered by the School of Social Work in the College of Health and Human Services through an interdisciplinary coordinating committee composed of faculty who are actively involved in the gerontology field. The 21-semester-hour interdisciplinary minor is available to students who are majors in any department or college of the University. It may serve as a core of study for undergraduate students who

wish to supplement their studies with a detailed knowledge of gerontology or who contemplate entering master's or doctoral programs in gerontology. The minor should be of particular interest to students preparing for work in the physical and mental health service careers, to those working in continuing care centers, for community organization and social service workers, and for educators.

Gerontology Minor

Required Courses..... 14-15 hours

- BIOL239 Biology of Aging (2 hrs)
- GERT212 Introduction to Careers in Gerontology (1 hr)
- GERT488/489 Gerontology Practicum/Seminar (2-3 hrs)
- PSY323 Psychology of Human Aging (3 hrs)
- SOCL311 Social Gerontology (3 hrs)
- SWRK420 Working with Aging People (3 hrs)

Elective Courses..... 6-7 hours

Students are required to complete elective requirements by choosing courses from the following:

- COUN573 Counseling the Older Adult (3 hrs)
- DTC372 Life Cycle Nutrition (3 hrs)
- ECON327 Economics of Poverty, Inequality and Discrimination (3 hrs)
- EDPS402 Learning in the Later Years (3 hrs)
- 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)
- GERT515 Sexuality and Aging (1 hr)
- GERT516 The Elderly and The Law (1 hr)
- GERT517 Developing Funding 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 Individuals with Dementia (2 hrs)
- GERT532 Aging Through the Eyes of the Old (2 hrs)
- HLAD250 Introduction to Public Health (3 hrs)
- HLAD300 Health Care Issues (2 hrs)
- HLAD310 Administration of Health Care Organizations (3 hrs)
- HLAD460 Long-Term Care Administration (3 hrs)
- IDE111 Human Factors and Special Needs (2 hrs)
- IDE269 Housing for Consumers (3 hrs)
- IDE503 Physical Environments and Aging (2 hrs)
- IHHS260 Aging to Infancy: A Life Course Retrospective (3 hrs)
- NURS360 Gerontological Nursing (2 hrs)
- PHED479 Special Topics (3 hrs)
- PSY551 Psychology of Death and Dying (2 hrs)
- SWRK413 Women and Aging (3 hrs)
- SWRK424 Social Work with Physically and Mentally Handicapped (3 hrs)
- SWRK457 Separation, Loss and Grief (1 hr)
- SWRK550 Working with Aging People (3 hrs)
- THRC310 Leisure and the Older Adult (3 hrs)

One course from the following:

- DTC101 Fundamentals of Personal Nutrition (3 hrs)
- DTC202 Principles of Human Nutrition (3 hrs)
- DTC203 Nutrition for Health Professionals (3 hrs)
- DTC204 Sports Nutrition (3 hrs)

Minor Total..... 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

College of Technology

Interim Dean

Morel D. Boone
122 Sill Hall
Phone: 734.487.1161

Schools and Departments

- Engineering Technology
- Technology Studies
- Military Science and Leadership

Interim Associate Dean

Pauline W. Buchanan
122 Sill Hall
Phone: 734.487.3685

The Mission

The College of Technology's mission is to cultivate a learning community dedicated to education, research and public engagement while committed to excellence in technology programs. More specifically, the College of Technology meets the need for well-prepared individuals for a variety of business and industrial positions, teachers of business and industrial education and commissioned officers for the United States Army. Baccalaureate and graduate programs provide a solid foundation in mathematics, science, technology management and human relations in order to effectively serve the educational aspirations of their students. Students learn to apply sound theory to practical problems and have opportunities for laboratory and cooperative work experiences. Graduates are prepared for engineering technology and technology management positions in design, production, research and marketing for business and industry. Also included within the college is the University's long-standing military science program, which promotes leadership qualities for and entry into the active Army, Army Reserve or National Guard as a commissioned officer. The college currently is composed of the schools of Engineering Technology (SET) and Technology Studies (STS) and the Department of Military Science and Leadership (MSL). Inherent in the interdisciplinary program is the use of existing courses and personnel throughout the University. Students in the pre-engineering professional programs are advised by faculty in SET. Specific programs have been designed as collaborative efforts with other colleges including Arts and Sciences and Business.

The college also is the home for several centers and institutes including the Center for Regional and National Security, the Coatings Research Institute, the Center for Product Research and Development, and the Textiles, Research and Training Institute. The college also supports three units from grant funding through the state of Michigan: Business Professionals of America, DECA, FCCLA, and Skills U.S.A.

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.

See page 275 for College of Technology interdisciplinary courses.

Schools and Majors

School of Engineering Technology

- Applied Technology
- Computer Aided Design
- Computer Engineering Technology
- Construction Management
- Electronics Engineering Technology
- Interior Design
- Manufacturing Engineering Technology
- Manufacturing Technology
- Mechanical Engineering Technology
- Polymers and Coatings
- Pre-Engineering

School of Technology Studies

- Apparel, Textiles and Merchandising
- Aviation Flight Technology
- Aviation Management Technology
- Business, Management, Marketing and Technology
- Communication Technology
- Hotel and Restaurant Management
- Industrial Distribution
- Information Assurance
- Paralegal Studies
- Network and Information Technology Administration
- Technology and Design Education
- Technology Management

Centers and Institutes

The College of Technology has four centers and institutes which 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:

- Create new processes; develop new business through product design, prototype and testing; expand sponsored research programs; integrate technological innovations into economic-development efforts; offer training and educational programs; provide patent process assistance.

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 imitated 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 e-commerce and sustainability.

Law Enforcement and 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 school safety component 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. The 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 postdoctoral candidate students, and our collabor-

rations 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 competencies 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 and 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 multidisciplines and industries. The TRTI will provide a variety of educational training programs for industries that use textiles for various applications.

TRTI Laboratories

Our computer labs are housed in Roosevelt Hall on the main campus of Eastern Michigan University in Ypsilanti. 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.

TRTI 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 AcuMark® 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 are offered, training on Gerber platform software is also offered.

School of Engineering Technology

Director: Berhrooz Lahidji
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See pages 264, 265, 271, 276, 290, 296, 298, 315, 328, 329, 339, 354 and 356 for course descriptions.

The School of Engineering Technology offers the following majors: applied technology, computer aided design, computer engineering technology, construction management, electronics engineering technology, interior design, mechanical engineering technology, manufacturing engineering technology, manufacturing technology and polymers and coatings. In addition, a pre-architectural program is offered.

The construction management program has been accredited by the American Council for Construction Education, the Interior Design Program is accredited by the Foundation for Interior Design Education Research (FIDER) and the Computer-Aided Design and Manufacturing Technology programs are accredited by the National Association of Industrial Technology.

The advising procedure is posted in the school offices in Roosevelt and Sill halls. Majors are responsible for meeting the requirements for graduation. It is strongly recommended that students see their adviser each semester to review their program of study. Students not assigned to an adviser should call the office for an appointment with an adviser.

The School of Engineering Technology has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall, 487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.S. Applied Technology — Henry Ford Community College
- B.S. Applied Technology — Macomb Community College
- B.S. Applied Technology — Monroe County Community College
- B.S. Applied Technology — Mott Community College
- B.S. Applied Technology — Oakland Community College
- B.S. Applied Technology — Owens Community College
- B.S. Applied Technology — Schoolcraft College
- B.S. Applied Technology — Washtenaw Community College
- B.S. Applied Technology — Wayne County Community College
- B.S. Construction Management — Monroe County Community College
- B.S. Construction Management — Oakland Community College
- B.S. Construction Management — Washtenaw Community College
- B.S. Electronic Engineering — Henry Ford Community College

See page 11 for further details

Applied Technology Major — Transfer

The applied technology major is designed to serve those individuals who wish to continue their technology-related community college education. The program offers the flexibility of accepting a block of up to 34 credits of technical courses as transfer credit. Articulation agreements have been established with several community colleges to ensure the maximum trans-

fer of credits. Students transferring from other four-year higher education institutions with a technical major may also find this major suitable.

An active articulation agreement exists between this program and Henry Ford Community College, Macomb Community College, Monroe County Community College, Mott Community College, Oakland Community College, Schoolcraft College, Washtenaw Community College and Wayne County Community College. See page 11 for further details.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 75 hours
Required Courses..... 20 hours

- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- MATH105 College Algebra (3 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- MATH170 Elementary Statistics (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

Restricted Elective Courses..... 6 hours
Select six hours of restricted electives in consultation with an adviser.

Restricted MFG Elective Courses..... 15 hours
Select 15 hours at the 300- and 400-level in consultation with an adviser.

Technical Courses..... 34 hours
Up to 34 hours of transferred technical courses may be applied to this major.

Minor Requirements 0 hours
No minor is required.

Elective Courses..... 9 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Computer-Aided Design Major

Students majoring in CAD are prepared for a wide range of CAD-related job opportunities. The applications of CAD are becoming more diverse and are found in many areas, such as architecture, medicine, geographic information systems, facilities management, product presentation and computer animation.

In the CAD courses, you will gain knowledge and hands-on experience in the following four technical areas:

1. CAD applications involving an extensive knowledge of all major CAD applications;
2. Interactive 2-D and 3-D wire frame drawing, geometric dimensioning and tolerancing, solid modeling and surfacing;
3. Interactive 2-D graphics programming for business graphics, animation and CAD drawings involving menu and icon development along with software customization;
4. Applied mechanics, kinematics and design and finite element analysis;
5. Product data management.

Graduates from our CAD program are employed in industry as CAD engineers, product designers, application programmers, technical support engineers, CAD/CAM systems managers, training consultants and entry-level designers, as well as in equipment sales and support.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 85 hours
Required Courses..... 77 hours

- CADM122 Engineering Graphics I (3 hrs)
- CADM223 Engineering Graphics II (3 hrs)
- CADM231 Computer Graphic Programming for Industry (3 hrs)
- CADM324 3-D Solid Modeling (3 hrs)
- CADM325 Applied Mechanics, Kinematics, and Design (3 hrs)
- CADM331 Product Design Data Management I (3 hrs)
- CADM387 Cooperative Education in CAD/CAM Technology (3 hrs)
- CADM432 3-D Feature-Based Modeling and Surfacing Techniques (3 hrs)
- CADM433 Advanced Computer-Aided Design (3 hrs)
- CADM435 Finite Element Analysis (3 hrs)
- CADM491 Mechanical Design Capstone (3 hrs)
- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- COSC205 Computer Hardware and Software Systems (3 hrs)
- COSC246 Programming in C++ (3 hrs)
- MATH105 College Algebra (3 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- MATH170 Elementary Statistics (3 hrs)
- MFG111 Materials (3 hrs)
- MFG123 Manufacturing Processes and Methods I (3 hrs)
- MFG124 Manufacturing Processes and Methods II (3 hrs)
- MFG203 Industrial Operation (3 hrs)
- MFG290 GD&T Metrology (3 hrs)
- MFG316 Design for Manufacturing and Tooling (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hrs)
- PHY222 Electricity and Light (4 hrs)

Restricted Elective Courses..... 8 hours
Eight hours selected in consultation with a CAD adviser.

Minor Requirements 0 hours
No minor is required.

Program Total..... 125 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Construction Management Major

The construction major includes course work in general education with specified science and mathematics courses, recommended business courses, electives (a list of recommended course electives that require the prior approval of a construction or facility management adviser) and technical courses. A minor is not required. A C- or better is required for all major courses.

The construction management major is designed to prepare men and women for middle- and upper-level management in construction contracting. The major has been developed in cooperation with experts from the construction industry and guidelines are established by major construction associations and feedback from employers and graduates. The construction management major reflects the current needs and trends in the construction industry.

An active articulation agreement exists between this program and Monroe Community College, Oakland Community College and Washtenaw Community College. See page 11 for further details.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 94 hours
Required Courses..... 46 hours

- CNST125 Introduction to Construction (2 hrs)
- CNST201 Construction Systems (3 hrs)
- CNST202 Construction Materials (3 hrs)
- CNST206 Surveying (3 hrs)

- CNST213 Construction Safety (3 hrs)
- CNST228 Construction Graphics (3 hrs)
- CNST229 Analysis of Commercial Prints (3 hrs)
- CNST302 Contract Documents, Regulations, and Specifications (3 hrs)
- CNST303 Electrical, Mechanical, and Equipment Systems (3 hrs)
- CNST304 Construction Estimating and Bidding (3 hrs)
- CNST361 Planning and Scheduling (3 hrs)
- CNST387 Cooperative Education in Construction Management (3 hrs)
- CNST403 Production Control (2 hrs)
- CNST406 Construction Law (2 hrs)
- CNST412 Fundamentals of Structural Design (3 hrs)
- CNST446 Senior Seminar (1 hr)
- CNST450 Fundamentals of Construction Project Management (3 hrs)

CM Restricted Elective 15 hours

15 hours from the following:

- CNST426 Mechanical and Electrical Construction Applications (3 hrs)
- CNST436 Heavy/Highway Construction Contracting (3 hrs)
- CNST479 Environmental Construction Contracting (3 hrs)
- CNST479 Construction Business Ownership (3 hrs)
- CNST479 Residential Land Development (3 hrs)
- GHPR335 Historic Preservation (3 hrs)
- GPLN215 Introduction to Urban and Regional Planning (3 hrs)
- IDE208 Introduction to Basic Design (3 hrs)
- IDE317 Lighting for Interiors (2 hrs)

Natural Sciences/Quantitative Reasoning 11 hours

- ESSC110 Dynamic Earth Systems (4 hours)
- MATH170 Elementary Statistics (3 hrs)
- PHY221 Mechanics, Sound and Heat (4 hours)

Natural Sciences/ Math Restricted Elective..... 4 hours

Four hours from the following:

- CHEM117/118 Principle of Chemistry (3/1 hours)
- MATH120 Calculus I (4 hours)

Additional courses with adviser approval

Business Major Requirements 18 hours

18 hours from the following:

- ACC130 Accounting for Non-business Majors (3 hrs)
- ACC240 Principles of Financial Accounting (3 hrs)
- ECON320 Labor Economics (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- LAW350 International Business (3 hrs)
- LAW393 Law of Business Enterprises (3 hrs)
- LAW403 Employment Law (3 hrs)
- MGMT202 Business Communication (3 hrs)
- MGMT384 Human Resource Management (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- MGMT388 Introduction to Entrepreneurship (3 hrs)
- MGMT481 Managing the Entrepreneurial Venture (3 hrs)
- MGMT482 Compensation Administration (3 hrs)
- MGMT484 Management-Union Relations (3 hrs)
- MKTG261 Contemporary Selling (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- MKTG364 Logistics and Materials Management (3 hrs)
- MKTG368 Marketing Strategy (3 hrs)
- MKTG375 International Business Transactions (3 hrs)
- QUAL320 Industrial Quality Control (3 hrs)

Additional courses with adviser approval

Minor Requirements0 hours

No minor is required.

Program Total..... 134 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Engineering Technology Programs

The engineering technology programs are based on engineering theory with emphasis on application and implementation skills. The curriculum includes University general education, the engineering technology core and majors in computer engineering technology, electronic engineering technology, manufacturing engineering technology and mechanical engineering technology (MET). With a common general education and engineering technology core, students may investigate career options and personal preferences at the beginning of their studies and change majors without loss of credits toward program completion.

Computer Engineering Technology Major

The computer engineering technology program applies scientific, computer, and engineering knowledge, combined with technical skills, in support of computerized activities. The computing field is one of the fastest growing segments of industry, and the program is developed to include many application aspects of computer engineering technology. The graduates generally apply the theories and principles to design, analyze, produce, operate, program and maintain computer and digital control systems. In addition, the curriculum includes the study of engineering database management and engineering information technology. Graduates are employed in industry as computer engineers, computer architecture designers, software engineers and engineering information technologists.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 84 hours

Required Courses..... 81 hours

- CADM122 Engineering Graphics I (3 hrs)
- CET251 Engineering Software and Applications (3 hrs)
- CET353 Web Development for Engineering Applications (3 hrs)
- CET387 Cooperative Education in Computer Engineering Technology (3 hrs)
- CET427 Programmable Logic Controller (3 hrs)
- CET451 Engineering Database Development (3 hrs)
- CET453 Engineering Programming (3 hrs)
- CET491 Senior Design Capstone (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- COSC246 Programming in C++ (3 hrs)
- COSC311 Algorithms and Data Structures (3 hrs)
- ELEC200 Circuit Analysis I (3 hrs)
- ELEC214 Digital Circuit Analysis (3 hrs)
- ELEC215 Computer-Aided Electronics (3 hrs)
- ELEC218 Motors and Controls (3 hrs)
- ELEC300 Analog Circuit Analysis I (3 hrs)
- ELEC320 Microcomputer Circuits (3 hrs)
- ET100 Introduction to Engineering Technology (3 hrs)
- IS380 Introduction to Databases (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)
- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- POM374 Introduction to Product/Operation Management (3 hrs)
- Writing Intensive Course (3 hrs)

Restricted Electives 3 hours

Three hours from the following selected in consultation with the adviser:

- CADM223 Engineering Graphics II (3 hrs)
- CET426 Engineering Product Information (3 hrs)
- COSC221 Computer Organization I (3 hrs)
- COSC321 Computer Organization II (3 hrs)
- ELEC314 Digital Circuit Analysis II (3 hrs)
- ELEC420 Advanced Microprocessors (3 hrs)
- IS315 Applied Data Structures (3 hrs)
- MATH122 Elementary Linear Algebra (3 hrs)
- MATH325 Differential Equations (3 hrs)

MFG111 Engineering Materials (3 hrs)
 MFG123 Manufacturing Processes and Methods (3 hrs)
 PHY230 Dynamics (3 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total 124 hours

Electronic Engineering Technology Major

The electronic engineering technology major is designed to prepare students for interesting and challenging positions in the diverse field of electronics. The curriculum provides for a strong foundation in electronics to support future changes in technology or the career roles of the individual. The graduate may find employment on engineering teams in product design and development, in production and automation, in instrumentation and communications or in technical sales and operations.

An active articulation agreement exists between this program and Henry Ford Community College. See page 11 for further details.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 91 hours
 Required Courses 91 hours

CADM122 Engineering Graphics I (3 hrs)
 CET426 Engineering Product Information (3 hrs)
 CET427 Programmable Logic Controller (3 hrs)
 CHEM121/122 General Chemistry I with lab (4 hrs)
 COSC246 Programming in C++ (3 hrs)
 ELEC200 Circuit Analysis I (3 hrs)
 ELEC210 Circuit Analysis II (3 hrs)
 ELEC214 Digital Circuit Analysis I (3 hrs)
 ELEC215 Computer-Aided Electronics (3 hrs)
 ELEC218 Motors and Controls (3 hrs)
 ELEC300 Analog Circuit Analysis I (3 hrs)
 ELEC310 Analog Circuit Analysis II (3 hrs)
 ELEC314 Digital Circuit Analysis II (3 hrs)
 ELEC320 Microcomputer Circuits (3 hrs)
 ELEC326 Transform Circuit Analysis with Calculus (3 hrs)
 ELEC387 Cooperative Education in Electronic Technology (3 hrs)
 ELEC415 Communication Circuits (3 hrs)
 ELEC420 Advanced Microprocessors (3 hrs)
 ELEC450 Senior Design Project (3 hrs)
 ET100 Introduction to Engineering Technology (3 hrs)
 MATH120 Calculus I (4 hrs)
 MATH121 Calculus II (4 hrs)
 MATH122 Elementary Linear Algebra (3 hrs)
 MET312 Applied Dynamics Principles (3 hrs)
 PHY223 Mechanics and Sound (5 hrs)
 PHY224 Electricity and Light (5 hrs)
 QUAL320 Industrial Quality Control (3 hrs)
 Writing Intensive Course (3 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total 131 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Manufacturing Engineering Technology Major

The Manufacturing Engineering Technology program prepares the student for the development, design, analysis, planning, supervision and construction of methods and equipment for the production of industrial and consumer goods. Students receive a unique blend of knowledge which directly corresponds to modern applications used in manufacturing. Graduates can become certified as manufacturing engineers by the Society of Manufacturing Engineers.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 91 hours
 Required Courses 91 hours

CADM122 Engineering Graphics I (3 hrs)
 CADM223 Engineering Graphics II (3 hrs)
 CHEM121/122 General Chemistry I with lab (4 hrs)
 ET100 Introduction to Engineering Technology (3 hrs)
 ELEC200 Circuit Analysis (3 hrs)
 ELEC218 Motors and Controls (3 hrs)
 MATH120 Calculus I (4 hrs)
 MATH121 Calculus II (4 hrs)
 MATH170 Elementary Statistics (3 hrs)
 MET211 Statics (3 hrs)
 MET313 Applied Mechanics of Materials (3 hrs)
 MET319 Fluid Mechanics (3 hrs)
 MFG111 Materials (3 hrs)
 MFG123 Manufacturing Processes and Methods I (3 hrs)
 MFG124 Manufacturing Processes and Methods II (3 hrs)
 MFG203 Industrial Operations (3 hrs)
 MFG290 GD&T and Metrology (3 hrs)
 MFG306 Plastics Processing (3 hrs)
 MFG316 Design for Manufacturing and Tooling (3 hrs)
 MFG361 Computer Numerical Control (3 hrs)
 MFG387 Cooperative Education (3 hrs)
 MFG421 Manufacturing Engineering and Analysis (3 hrs)
 MFG470 Integrated Product and Process Design (3 hrs)
 MFG490 Manufacturing Enterprise Capstone (3 hrs)
 PHY223 Mechanics and Sound (5 hrs)
 PHY224 Electricity and Light (5 hrs)
 QUAL320 Industrial Quality Control (3 hrs)
 Writing Intensive Course (3 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total 131 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Mechanical Engineering Technology Major

The mechanical engineering technology major offers the opportunity to prepare for rewarding and responsible careers in support of technical and engineering activities. The program is designed to provide graduates with a strong technical foundation that integrates the methods, materials, machinery and power resources found in modern industry. Students receive both lecture and hands-on laboratory training in manufacturing processes, engineering mechanics, thermo-fluid sciences and machine design, culminating in a senior design capstone project.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements 91 hours

CADM223 Engineering Graphics II (3 hrs)
 CADM122 Engineering Graphics I (3 hrs)
 CHEM121/122 General Chemistry I with lab (4 hrs)
 COSC246 Programming in C++ (3 hrs)
 ELEC200 Circuit Analysis I (3 hrs)
 ELEC218 Motors and Controls (3 hrs)
 ET100 Introduction to Engineering Technology (3 hrs)
 MATH120 Calculus I (4 hrs)
 MATH121 Calculus II (4 hrs)
 MET211 Statics (3 hrs)
 MET312 Applied Dynamics Principles (3 hrs)

- MET313 Applied Mechanics of Materials (3 hrs)
- MET314 Applied Thermodynamics and Heat Transfer (3 hrs)
- MET319 Fluid Mechanics (3 hrs)
- MET387 Cooperative Education (3 hrs)
- MET411 Mechanical/Machine Design (3 hrs)
- MET434 Finite Element Analysis for Engineering Applications (3 hrs)
- MET437 Kinematics of Machines (3 hrs)
- MET470 Mechanical Vibrations (3 hrs)
- MET492 Senior Design Project I (3 hrs)
- MET493 Senior Design Project II (3 hrs)
- MFG111 Materials (3 hrs)
- MFG123 Manufacturing Processes and Methods I (3 hrs)
- MFG124 Manufacturing Processes and Methods II (3 hrs)
- MFG316 Design for Manufacturing and Tooling (3 hrs)
- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- Writing Intensive Course (3 hrs)

Minor Requirements0 hours
No minor is required.

Program Total..... 131 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Interior Design Program

The interior design program offers a Foundation for Interior Design Education Research (FIDER) accredited, four-year studio based curriculum, culminating in a bachelor's of science degree. The program's mission is to academically prepare students to enable them to creatively solve problems related to the function and quality of interior environments.

The program promotes critical thinking by requiring a balance between broad liberal arts courses, specific courses in fine arts, management, marketing, construction, textiles; and an intense curriculum of interior design courses. The interior design curriculum provides experiential educational opportunities to investigate the interaction of humans and environments through the integration of theory, knowledge and technical skills, preparing students to achieve in the challenging profession of interior design. Central to our mission of preparing students to achieve as professional interior design practitioners is our goal to impart to our students: a holistic view of people and their environments in multicultural, multiracial and multiethnic settings; a sensitivity to environmentally conscious design issues; a consideration of the needs of all people, regardless of age, stature or ability; and the ability to creatively analyze design problems in order to create interior environments that meet human needs and fulfill human aspirations.

Before students may enter courses at the 300- or 400-level, the following standards must be met:

1. The student must receive a C or better in a) identified courses in the major and b) identified general education courses;
2. The student must achieve a GPA of 2.7 or above as calculated from the grades in a) identified courses in the major and b) identified general education courses; and
3. The student must successfully complete a portfolio review by a minimum of two interior design faculty members and one interior design practitioner who has not taught courses in the interior design program in the previous two years.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 18 hours
ART122 Two-Dimensional Design (3 hrs)
ART123 Drawing I (3 hrs)
COSCI01 Computer Science Concepts and Practical Applications (3 hrs)

- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- PSY101 General Psychology (3 hrs)
- Choose one of the following:*
ANTH135 Introduction to Cultural Anthropology (3 hrs)
SOCL105 Introductory Sociology (3 hrs)

Major Requirements..... 74 hours
Required Courses..... 71 hours

- ATM235 Introductory Textiles (3 hrs)
- CNST201 Construction Systems (3 hrs)
- IDE110 Interior Design Studio I (4 hrs)
- IDE111 Human Factors and Special Needs (2 hrs)
- IDE120 Interior Design Studio II (4 hrs)
- IDE121 Interior Design Materials and Components (2 hrs)
- IDE122 Design Theory II (2 hrs)
- IDE131 Design Theory I (2 hrs)
- IDE210 Interior Design Studio III (4 hrs)
- IDE213 Computers for Interior Design (2 hrs)
- IDE218 History of Interiors: Ancient – 1800 (2 hrs)
- IDE220 Interior Design Studio IV (4 hrs)
- IDE224 Interior Building Codes (2 hrs)
- IDE228 History of Interiors: 1800 – Present (2 hrs)
- IDE310 Interior Design Studio V: Residential (4 hrs)
- IDE314 Computers for Interior Design II (2 hrs)
- IDE317 Lighting for Interiors (2 hrs)
- IDE320 Interior Design Studio VI: Contract (4 hrs)
- IDE322 Interior Design Space Planning and Specification (2 hrs)
- IDE323 Internship Preparation (2 hrs)
- IDE410 Interior Design Studio VII: Contract (4 hrs)
- IDE411 Internship in Interior Design (1 hr)
- IDE420 Interior Design Studio VIII: Contract (4 hrs)
- IDE422 Professional Practice in Interior Design (2 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)

Restrictive Elective Courses..... 3 hours
Any one hour IDE 100- or 200-level course not taken above and any two hour IDE 300- or 400-level course not taken above. Selected in consultation with the interior design adviser.

Minor Requirements0 hours
No minor is required.

Program Total..... 132 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Manufacturing Technology Major

The rapid increase in complexity of manufacturing technology and operations has caused the education of most engineers to become increasingly theoretical. This has produced a demand for manufacturing professionals who have applied technical skills. Our graduates, who are educated in applied technologies, help to meet that demand. Students majoring in manufacturing are prepared for a wide range of professional positions in industry. Graduates are employed as manufacturing engineers; manufacturing operations managers; computer applications integrators; product, process and tool designers; and in many other technical and managerial positions. The manufacturing technology major includes a core of fundamental manufacturing courses designed to produce a well-rounded graduate with hands-on experience. In advanced courses, students gain knowledge and skills in mechanical and tool design, fluid power systems, quality control, robotics and control technologies for machines, processes and manufacturing operations management. A number of our graduates have become certified as manufacturing technologists or manufacturing engineers by the Society of Manufacturing Engineers.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 80 hours
 Required courses..... 80 hours

- CADM122 Engineering Graphics I (3 hrs)
 - CADM223 Engineering Graphics II (3 hrs)
 - CADM325 Applied Mechanics, Kinematics, and Design (3 hrs)
 - CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
 - ELEC200 Circuit Analysis I (3 hrs)
 - ELEC218 Motors and Controls (3 hrs)
 - MATH105 College Algebra (3 hrs)
 - MATH107 Plane Trigonometry (2 hrs)
 - MATH170 Elementary Statistics (3 hrs)
 - MFG111 Materials (3 hrs)
 - MFG123 Manufacturing Processes and Methods I (3 hrs)
 - MFG124 Manufacturing Processes and Methods II (3 hrs)
 - MFG203 Industrial Operation (3 hrs)
 - MFG290 GD&T and Metrology (3 hrs)
 - MFG306 Plastic Processing (3 hrs)
 - MFG316 Design for Manufacturing and Tooling (3 hrs)
 - MFG361 Computer Numerical Control (3 hrs)
 - MFG387 Cooperative Education in Manufacturing Technology (3 hrs)
 - MFG421 Manufacturing Engineering Analysis (3 hrs)
 - MFG425 Advanced Manufacturing Methods (3 hrs)
 - MFG470 Integrated Product and Process Design (3 hrs)
 - MFG490 Manufacturing Enterprise Capstone (3 hrs)
 - PHY221 Mechanics, Sound and Heat (4 hrs)
 - PHY222 Electricity and Light (4 hrs)
 - QUAL320 Industrial Quality Control (3 hrs)
- One course from the following:*
- ACC130 Accounting for Nonbusiness Majors (3 hrs)
 - ACC240 Principles of Financial Accounting (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses 4 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Polymers and Coatings Technology Curriculum

The polymers and coatings curriculum is designed to provide the background necessary for graduates to find employment in companies that manufacture and use paints, coatings, rubber, plastics, polymers, adhesives and inks, or in companies that manufacture raw materials for these industries. Students completing this curriculum have met the major and minor requirements for graduation. No outside minor is needed.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 16 hours

- CHEM123/124 General Chemistry II (4 hrs with lab)
- CHEM381 Instrumentation of Chemical Technology (2 hrs)
- MATH107 Plane Trigonometry (2 hrs)
- MATH120 Calculus I (4 hrs)
- PHY222 Electricity and Light (4 hrs)

Major Requirements..... 69 hours
 Required Courses..... 57 hours

- CHEM281 Quantitative Analysis (4 hrs)
- CHEM361 Fundamentals of Physical Chemistry (3 hrs)
- CHEM371 Organic Chemistry I (3 hrs)
- CHEM372 Organic Chemistry II (3 hrs)
- CHEM373 Organic Chemistry Laboratory (2 hrs)
- PC203 Miniaturization in Technology (3 hrs)
- PC310 Polymers for Engineers and Technologists (3 hrs)
- PC387 Cooperative Education in Interdisciplinary Technology (3 hrs)
- PC379 Special Topics (3 hrs)
- PC400 Polymers and Coatings Technology I (3 hrs)
- PC401 Polymers and Coatings Technology I Laboratory (3 hrs)
- PC402 Polymers and Coatings Technology II (3 hrs)
- PC403 Polymers and Coatings Technology II Laboratory (3 hrs)
- PC416 Water-Based Coatings (3 hrs)
- PC460 Advanced Coatings Topics (3 hrs)
- PC479 Special Topics: Introduction to Coating Raw Materials (3 hrs)
- PC499 Independent Study (3 hrs)

Elective Courses 18 hours

Eighteen hours from the following:

- CHEM340 Introduction to Industrial Chemistry (3 hrs)
- CHEM341 Materials Science (3 hrs)
- CHEM415 Environmental Chemistry (3 hrs)
- CHEM478 Special Topics (2 hrs)
- PC377/378/379 Special Topics (1/2/3 hrs)
- PC477/478/479 Special Topics (1/2/3 hrs)
- PC487 Cooperative Education in Interdisciplinary Technology (1 hr)
- PC497/498/499 Independent Study (1/2/3 hrs)

Minor Requirements 0 hours
No minor is required.

Program Total..... 125 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Pre-Architecture Program

This program is designed for students who wish to transfer to an architecture program at another University. Students are strongly advised to consult with the school to which they plan to transfer for specific requirements. Courses taken may apply to other majors at the University if the student chooses to remain on this campus to complete a bachelor's degree.

Department advisers in these areas maintain contact with universities that offer related four-year programs in order to maximize the value of the transfer program of study at the University to other universities. Students planning to transfer to four-year programs should not complete EMU's general education requirements.

Required Courses..... 57 hours

- ART123 Drawing I (3 hrs)
- ART131 Three-Dimensional Design (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- CHEM117/118 Fundamentals of Chemistry with lab (4 hrs)
- CTAS121 Fundamentals of Speech (2 hrs)
- ECON201 Principles of Macroeconomics (3 hrs)
- ECON202 Principles of Microeconomics (3 hrs)
- ENGL121 Composition II: Researching the Public Experience (3 hrs)
- HIST123 The United States to 1877 (3 hrs)
- MATH120 Calculus I (4 hrs)
- MATH121 Calculus II (4 hrs)

- PHIL130 Introduction to Logic (or approved alternative) (3 hrs)
- PHY223 Mechanics and Sound (5 hrs)
- PHY224 Electricity and Light (5 hrs)
- PLSC112/113 American Government (3 hrs)
- Two literature courses (6 hrs)

Recommended Course (course may not transfer).....2 hours
CNST125 Introduction to Construction (2 hrs)

Program Total..... 59 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Construction Management Minor

This minor is designed to provide a background in fundamental technical applications for students with majors outside the department who expect to work in industry. Employment opportunities are enhanced for persons with technical coursework.

University elective courses in the minor are selected to relate to the student's major subject area. Academic advising to determine elective course choices is provided by the School of Engineering Technology. A maximum of six hours may be transferred from outside the department.

- Required Courses 23 hours
- CNST125 Introduction to Construction (2 hrs)
 - CNST201 Construction Systems (3 hrs)
 - CNST202 Construction Materials (3 hrs)
 - CNST228 Construction Graphics (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)

Minor Total..... 23 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Human Environments Minor

- Required Courses6 hours
- IDE111 Human Factors and Special Needs (2 hrs)
 - IDE122 Interior Design Theory II (2 hrs)
 - IDE131 Interior Design Theory I (2 hrs)

- Restricted Elective Courses 14 hours
- Fourteen hours from the following:*
- IDE110 Interior Design Studio I (4 hrs)
 - IDE120 Interior Design Studio II: Sketching (2 hrs)
 - IDE121 Interior Design Materials and Components (2 hrs)
 - IDE210 Interior Design Studio III (4 hrs)
 - IDE213 Computers in Interior Design I (2 hrs)
 - IDE218 History of Interiors: Ancient to 1800 (2 hrs)
 - IDE224 Interior Build Codes (2 hrs)
 - IDE228 History of Interiors: 1800 to Present (2 hrs)
 - IDE314 Computers in Interior Design II (2 hrs)
 - IDE317 Lighting for Interiors (2 hrs)
 - IDE322 Interior Design Space Planning (2 hrs)

Minor Total..... 20 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Manufacturing Minor

The manufacturing minor is designed to provide majors in business and science with an introduction to manufacturing engineering. Employment opportunities typically increase for persons with this minor.

University elective courses in the minor are selected to relate to the student's major. Academic advising to determine elective course choices is provided by a manufacturing adviser in the School of Engineering Technology.

- Required Courses 12 hours
- MFG111 Materials (3 hrs)
 - MFG123 Manufacturing Processes and Methods I (3 hrs)
 - MFG124 Manufacturing Processes and Methods II (3 hrs)
 - MFG203 Industrial Operation (3 hrs)

- Restricted Electives.....9 hours
- CADM122 Engineering Graphics I (3 hrs)
 - CADM223 Engineering Graphics II (3 hrs)
 - MFG112 Plastics (3 hrs)
 - MFG316 Design for Manufacturing and Tooling (3 hrs)
 - MFG290 GD&T and Meteorology (3 hrs)
 - MFG306 Plastic Processing (3 hrs)
 - MFG361 Computer Numerical Control (3 hrs)
 - MFG421 Manufacturing Engineering Analysis (3 hrs)
 - MFG425 Advanced Manufacturing Methods (3 hrs)
 - MFG470 Integrated Product and Process Design (3 hrs)
 - MFG490 Manufacturing Enterprise Capstone (3 hrs)
 - QUAL320 Industrial Quality Control (3 hrs)

Minor Total..... 21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

School of Technology Studies



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See pages 257, 258, 262, 270, 283, 312, 313, 315, 318, 320, 336, 351, 366, 367, 369 and 371 for course descriptions.

The School of Technology Studies is a vibrant place to learn, offering undergraduate and graduate programs that are challenging, exciting, relevant and rewarding for today's global economy. The undergraduate programs lead to a bachelor of science degree in apparel, textiles and merchandising, aviation flight technology, aviation management technology, business, management, marketing and technology, communication technology, hotel and restaurant management, industrial distribution, information assurance, paralegal studies, network and information technology administration, technology and design education, and technology management. Individuals who complete these professional curriculums will find many career opportunities open to them.

The School of Technology Studies has established articulation agreements to transfer credits from specific community colleges into their programs. The following programs have articulation agreements with the colleges listed below. For more information, please contact the department head or the Office of Community College Relations at 229 Rackham Hall,

487.6577. Full-text versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

- B.S. Communication Technology — Schoolcraft College
- B.S. Hotel/Restaurant Management — Henry Ford Community College
- B.S. Hotel/Restaurant Management — Schoolcraft College
- B.S. Hotel/Restaurant Management — Washtenaw Community College
- B.S. Industrial Distribution — Washtenaw Community College
- B.S. Paralegal — Delta Community College
- B.S. Paralegal — Henry Ford Community College
- B.S. Paralegal — Jackson Community College
- B.S. Paralegal — Macomb Community College
- B.S. Paralegal — Oakland Community College
- B.S. Paralegal — Washtenaw Community College
- B.S. Technology & Design Education — Washtenaw Community College
- B.S. Technology Management — Delta Community College
- B.S. Technology Management — Henry Ford Community College
- B.S. Technology Management — Jackson Community College
- B.S. Technology Management — Macomb Community College
- B.S. Technology Management — Monroe County Community College
- B.S. Technology Management — Oakland Community College
- B.S. Technology Management — Schoolcraft College
- B.S. Technology Management — Washtenaw Community College
- B.S. Technology Management — Wayne County Community College District

See page 11 for further details

Professional Programs

Students majoring in one of the professional programs listed above should follow the general education guidelines in the catalog under which they entered the University. Students must include a course in cross-cultural or international studies within the general education. Please see the College of Technology undergraduate adviser in Sill Hall (109 C) for advice regarding the general education requirements and guidelines for these College of Technology programs and for prerequisite course requirements. Specific program requirements are noted below.

Students without appropriate background or course prerequisites that are identified for courses in the majors are responsible to take those prerequisites. Transfer students should see the program adviser in their major to determine where transfer credit will be used on the major.

Apparel, Textiles and Merchandising Major

The apparel, textiles and merchandising curriculum offers practical career-oriented knowledge and skills as well as theoretical foundations of manufacturing and marketing fashion apparel and furnishing textiles. A minor in art, communication, physical science, journalism, management, marketing or theatre is required.

- General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.
- Major Requirements..... 45 hours
- Required Courses..... 21 hours
 - ATM145 Introduction to Apparel and Textile Merchandising (3 hrs)
 - ATM235 Introductory Textiles (3 hrs)
 - ATM255 Apparel Analysis (3 hrs)
 - ATM345 Merchandise Planning and Control (3 hrs)
 - ATM355 Application of Merchandising Practices (3 hrs)
 - ATM437 Professional Seminar (3 hrs)
 - ATM487 Field Experience (3 hrs)

Elective Courses 24 hours

Twenty-four hours from the following:

- ATM105 Integrated Arts (3 hrs)
- ATM118 Apparel Studio (3 hrs)
- ATM119 Early American Textiles (3 hrs)
- ATM135 Cultural Study of Dress (3 hrs)
- ATM210 Display Techniques (3 hrs)
- ATM265 Merchandising of Interior Furnishings (3 hrs)
- ATM302 Fashion Manufacturing Techniques (3 hrs)
- ATM378 Textiles for Interior (2 hrs)
- ATM380 Fashion of the Haute Couture (3 hrs)
- ATM390 Visual Merchandising (3 hrs)
- ATM392 Pattern Design (3 hrs)
- ATM404 Advanced Textiles (3 hrs)
- ATM439 Fashion Markets (3 hrs)
- ATM460 Tailoring (3 hrs)

Minor Requirements 21 hours

Select a minor from the following:

- art
- communication
- journalism
- management
- marketing
- theatre
- physical science

University Elective Courses 18 hours

Program Total..... 124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Aviation Flight Technology Curriculum

This program is designed to prepare individuals for positions as entry-level professional pilots in the aviation industry. Based upon the needs of the aviation industry, the program encompasses a program of study that takes an individual from student pilot to certified flight instructor. It also includes a number of specialized courses that incorporate aviation business and management skills, safety, human factors, aerodynamics, aviation law and regulations, and crew resource management. The program includes a general education curriculum designed to provide a well-rounded knowledge foundation.

The aviation flight technology program has amendments to the basic aviation program designed to accommodate ROTC students planning on applying for military pilot training. The accommodations include the Eastern Michigan University U.S. Army ROTC program and the Air Force or Naval ROTC programs located at the University of Michigan which may be attended by Eastern Michigan University students. Please contact the aviation flight technology program coordinator for further information.

General Education Requirements..... 40 hours

See page 46 for further information regarding General Education requirements.

Additional Requirements 14-15 hours

- PHY221 Mechanics, Sound and Heat (4 hrs)
- STS150 Understanding Technology (3 hrs)
- STS201 Microcomputer Applications in Technology (3 hrs)
- Choose one from the following:*
 - MATH107 Plane Trigonometry (2 hrs) and MATH119 Applied Calculus (3 hrs)
 - MATH120 Calculus I (4 hrs)

Major Requirements..... 73 hours

- AVT100 Introduction to Air Transportation (3 hrs)
- AVT110 Aircraft Maintenance I (3 hrs)
- AVT120 Flight Operations I (3 hrs)
- AVT170 Aviation Ground Instruction (3 hrs)
- AVT208 Aviation Human Factors (3 hrs)
- AVT215/ESSC215 Aviation Weather (3 hrs)
- AVT220 Flight Operations II (3 hrs)
- AVT222 Introduction to Automation in Aviation (3 hrs)
- AVT263 Aircraft Systems (3 hrs)
- AVT303 Aviation Law and Insurance (3 hrs)
- AVT313 Aviation Industry Regulations (3 hrs)
- AVT320 Aviation Safety (3 hrs)
- AVT321 Cockpit and Crew Resource Management (3 hrs)
- AVT322 System Safety in Aviation (3 hrs)
- †AVT251 Basic Flight (solo) (2 hrs)
- †AVT261 Basic Flight II (private) (2 hrs)
- †AVT271 Basic Flight III (50 hours Cross-Country) (2 hrs)
- AVT341 Instrument Ground Instruction (2 hrs)
- AVT342 Commercial Ground Instruction (2 hrs)
- †AVT351 Advanced Flight I (Instrument flight) (2 hrs)
- †AVT361 Advanced Flight II (Instrument flight) (2 hrs)
- †AVT371 Advanced Flight III (Commercial) (2 hrs)
- AVT382 Flight Instructor Ground Instruction (3 hrs)
- AVT384 Multi-Engine/Aircraft Systems Ground Instruction (2 hrs)
- AVT419 High Airspeed Aerodynamics/High Altitude Flight (3 hrs)
- AVT422 Senior Seminar (3 hrs)
- †AVT426 Advanced Flight IV (Multi-engine) (2 hrs)
- †AVT427 Advanced Flight V (CFI-A) (2 hrs)

Minor Requirements0 hours
No minor is required.

Program Total..... 127-128 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
†This course is a flight course involving flight activities conducted at the Eagle Flight Center.

Aviation Management Technology Curriculum

The aviation management technology curriculum is designed to prepare individuals for entry-level management and supervisory positions in the field of aviation technology. The program has a foundation of aviation-related and basic business course work.

General Education Requirements..... 40 hrs
See page 46 for further information regarding General Education requirements.

Additional Requirements 15 hours
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Macroeconomics (3 hrs)
STS150 Understanding Technology (3 hrs)
STS201 Microcomputer Application in Technology (3 hrs)
One course from the following:
MATH118 Linear Models and Probability (3 hrs)
MATH119 Applied Calculus (3 hrs)

Major Requirements..... 39 hours
AVT100 Introduction to Air Transportation (3 hrs)
AVT110 Aircraft Maintenance I (3 hrs)
AVT120 Flight Operations I (3 hrs)
AVT170 Aviation Ground Instruction (3 hrs)
AVT208 Aviation Human Factors (3 hrs)
AVT220 Flight Operations II (3 hrs)

- AVT303 Aviation Law and Insurance (3 hrs)
- AVT313 Aviation Industry Regulations (3 hrs)
- AVT315 Airport Management (3 hrs)
- AVT320 Aviation Safety (3 hrs)
- AVT322 System Safety in Aviation (3 hrs)
- AVT387 Cooperative Education in Interdisciplinary Technology (3 hrs)
- AVT422 Senior Seminar in Aviation Management (3 hrs)

General Business Requirements 30 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- ACC241 Principles of Managerial Accounting (3 hrs)
- DS265 Business Statistics I (3 hrs)
- FIN350 Principles of Finance (3 hrs)
- IS215 End-User Computing (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- MGMT384 Human Resource Management (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- MKTG360 Principles of Marketing (3 hrs)
- POM374 Introduction to Production/Operations Management (3 hrs)

Minor Requirements0 hours
No minor is required.

University Elective Courses0 hours

Program Total..... 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Business, Management, Marketing and Technology Major

Secondary Teacher Certification

The business, management, marketing and technology major leads to a Michigan Department of Education Secondary Provisional Certificate and, upon meeting the requirements according to the current Michigan State Plan, a vocational endorsement. The program prepares prospective teachers in the areas of information processing and management, administrative services, accounting and computing, and basic business such as economics, consumer economics, business law, business management, computer literacy and introduction to business.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 11 hours
BMMT123 Word Processing/Keyboarding Applications (2 hrs)
BMMT220 Word/Information Processing Administration (3 hrs)
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)

Major Requirements..... 52-53 hours
Business Core..... 12 hours
ACC240 Principles of Financial Accounting (3 hrs)
BMMT100 Contemporary Business (3 hrs)
BMMT201 Microcomputers for Business Applications (3 hrs)
Undergraduates choose one course from the following:
ACC241 Principles of Managerial Accounting (3 hrs)
ACC296 Accounting Principles (3 hrs)
Post-Baccalaureats choose one course from the following:
ACC241 Principles of Managerial Accounting (3 hrs)
ACC500 Accounting Principles (3 hrs)

Management Core..... 12 hours

TM212 Management of Technological Change (3 hrs)

One course from the following:

LAW293 Legal Environment of Business (3 hrs)

LAW503 Business Law (3 hrs)

One course from the following:

BMMT250 Personal Finance (3 hrs)

FIN350 Principles of Finance (3 hrs)

FIN502 Principles of Finance (3 hrs)

One course from the following:

BMMT395 Administering Workplace Systems and Technology (3 hrs)

MGMT384 Human Resource Management (3 hrs)

MGMT386 Organization Behavior and Therapy (3 hrs)

MGMT388 Introduction to Entrepreneurship (3 hrs)

Marketing Core..... 13-14 hours

BMMT200 Principles of Marketing and Office Education (3 hrs)

BMMT366 Methods of Teaching Marketing Education (2 hrs)

One course from the following:

MKTG360 Principles of Marketing (3 hrs)

MKTG510 Marketing Management (3 hrs)

Choose two courses from the following but only one may be a BMMT course.:

*BMMT367 Curriculum in Marketing Education (2 hrs)

BMMT368 Management of Marketing Education Programs (2 hrs)

BMMT461 Projects and Simulations in Marketing Education (2 hrs)

MKTG261 Contemporary Selling (3 hrs)

MKTG363 Retailing (3 hrs)

MKTG365 Consumer Behavior (3 hrs)

MKTG368 Consumer Behavior (3 hrs)

MKTG369 Advertising (3 hrs)

MKTG374 Business to Business Marketing (3 hrs)

MKTG461 Sales Management (3 hrs)

IT Core..... 15 hours

BMMT321 Digital Tools Communication (3 hrs)

BMMT496 Records Administration Using Database (3 hrs)

CMT421 Web Page Development (3 hrs)

NITA210 Concepts of Network and Business Technology (3 hrs)

STS224 Solving Quantitative Problems in Technology (3 hrs)

Professional Studies 41 hours

Pre-Admission Phase: The Learner

and the Community: 18 hours

Courses that may be taken before formal admission to the teacher education program

One-hundred clock hours of approved pre-student teaching field experiences

EDPS322 Human Development and Learning (4 hrs)

FETE201 Field Experience I (1 hr)

SPGN251 Education of Students with Exceptionalities (3 hrs)

Courses that require formal admission to the teacher education program.

Phase I: Curriculum, Assessment

and the Social Context: 9 hours

†BMMT363 Curriculum for Business Services and Technology (3 hrs)

EDPS340 Introduction to Assessment and Evaluation (3 hrs)

SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods,

Literacy and Technology: 12 hours

BMMT364 Methods of Teaching General Business Subjects (2 hrs)

BMMT365 Methods of Teaching Office Education (2 hrs)

BMMT366 Methods of Teaching Marketing Education (2 hrs)

BMMT367 Curriculum in Marketing Education (2 hrs)

FETE402 Field Experience III: Secondary (1 hr)

RDNG311 Teaching Reading in the Secondary School (3 hrs)

Phase III: Capstone Experience: 12 hours

EDUC492 Student Teaching (12 hrs)

Minor Requirements 0 hours

Program Total 142-143 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

**Must be taken as part of the College of Education pre-admission phase.*

†This course replaces CURR305 for BMMT majors.

Communication Technology Curriculum

Communication technology is a joint program offered by the Department of Interdisciplinary Technology and the Department of Communication and Theatre Arts. This curriculum is designed to provide the background necessary for graduates to find employment as managers in communication-based industries. The program emphasis is on having the student acquire those business, manufacturing, media, computer and communication skills necessary for employment in today's communication technology industries and business organizations.

An active articulation agreement exists between this program and Schoolcraft College. See page 11 for further details.

General Education Requirements 40 hours

See page 46 for further information regarding General Education requirements.

Major Requirements 65 hours

Media Production 9 hours

CTAT130 Introduction to Electronic Media (3 hrs)

CTAT141 Audio and Video Production for Nonmajors (3 hrs)

One course from the following:

CTAT331 Intermediate Radio Production and Direction (3 hrs)

CTAT332 Intermediate Television Production and Direction (3 hrs)

Transmission Systems 9 hours

CMT305 Communication Transmission Systems (3 hrs)

CMT408 Telephone Technology (3 hrs)

ELEC120 Principles of Electrical Theory (3 hrs)

Computer Technology 12 hours

Choose one option from the following:

Option I: Computer Programming

COSC138 Computer Science I (3 hrs)

COSC238 Computer Science II (3 hrs)

COSC239 Assembly and Machine Language (3 hrs)

COSC255 Introduction to Computer Hardware and Software Systems (3 hrs)

Option II: Information Management

IS219 File Processing and COBOL

Programming (3 hrs)

IS380 Database Concepts (3 hrs)

IS420 Business Data Communications and Computer Networks (3 hrs)

One course from the following:

IS442 Information Resource

Management (3 hrs)

IS417 Systems Analysis and Design (3 hrs)

Option III: Graphic Applications

CMT205 Digital Photo Technology (3 hrs)

CMT301 Multimedia Authoring (3 hrs)

CMT421 Web Publishing Technology (3 hrs)

CMT436 Electronic Publishing Technology (3 hrs)

Communication Theory and Practice.....	6 hours
CTAC227 Interpersonal Communication (3 hrs)	
CTAC354 Organizational Communication (3 hrs)	
Business and Investment Skills	6 hours
MKTG360 Principles of Marketing (3 hrs)	
PSY205 Quantitative Methods in Psychology (3 hrs)	
Management Skills.....	6 hours
ACC130 Accounting for Nonbusiness Majors (3 hrs)	
MGMT202 Business Communication (3 hrs)	
Interdisciplinary Technology.....	17 hours
CMT121 Graphic Communication (3 hrs)	
CMT231 Introduction to Computer Graphic Systems (3 hrs)	
CMT387 Cooperative Education in Interdisciplinary Technology (3 hrs)	
CMT409 Emerging Technologies in Storage and Retrieval (3 hrs)	
CMT425 Communication Technology and Social Change (3 hrs)	
CMT470 Senior Seminar in Communication Technology (2 hrs)	
Minor Requirements	0 hours
<i>No minor is required.</i>	
University Elective Courses	19 hours
Program Total.....	124 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Hotel and Restaurant Management Major

Hotel and restaurant management is a comprehensive program that integrates principles of hotel and restaurant management with club and resort management. The hotel and restaurant management program provides experiential educational opportunities in a wide variety of hospitality organizations through co-op or internships. A wide variety of minors are available to meet the diverse needs of our students in meeting their career objectives. The program offers a bachelor of science and master of science degree.

An active articulation agreement exists between this program and Henry Ford Community College, Schoolcraft College and Washtenaw Community College. See page 11 for further details.

General Education Requirements.....	40 hours
<i>See page 46 for further information regarding General Education requirements.</i>	
Additional Requirements	3 hours
BMMT201 Microcomputers for Business Applications (3 hrs)	
Major Requirements.....	56 hours
Specialization Courses.....	44 hours
HRM103 Introduction to the Hospitality Industry (3 hrs)	
HRM150 Sanitation in the Hospitality Industry (2 hrs)	
HRM180 Food Production (3 hrs)	
HRM251 Meal Service Management (3 hrs)	
HRM268 Hotel Operations Management (3 hrs)	
HRM289 Co-op Education in Hotel and Restaurant Management (3 hrs)	
HRM340 Cost Controls In the Hospitality Industry (3 hrs)	
HRM376 Legal Aspects of the Hospitality Industry (3 hrs)	
HRM389 Co-op Education in Hotel and Restaurant Management (3 hrs)	
HRM410 Human Resource Issues in the Hospitality Industry (3 hrs)	
HRM430 Seminar in Hospitality Management (3 hrs)	
HRM441 Commercial Purchasing (3 hrs)	
HRM450 Meetings and Events Management (3 hrs)	
HRM470 Hospitality Industry Marketing (3 hrs)	
HRM496 Strategies in Hospitality Management (3 hrs)	

Elective Courses	12 hours
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Twelve hours from the following:

HRM177/178/179 Special Topics (1/2/3 hrs)
HRM270 People Skills for the Hospitality Industry (3 hrs)
HRM277/278/279 Special Topics (1/2/3 hrs)
HRM330 Hotel and Restaurant Management (3 hrs)
HRM350 Lodging Facilities Management (3 hrs)
HRM360 Franchising and Contract Management (3 hrs)
HRM377/378/379 Special Topics (1/2/3 hrs)
HRM396 Club and Resort Management (3 hrs)
HRM420 Quality Service Management (3 hrs)
HRM475 International Hospitality Management (3 hrs)
HRM480 Gaming and Casino Management (3 hrs)
HRM497/498/499 Independent Study (1/2/3 hrs)

Minor Requirements	0 hours
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Minor in management is recommended. Consult an adviser for other appropriate minors.

University Elective Courses	25 hour
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Program Total.....	124 hours
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Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Industrial Distribution Major

The industrial distribution program emphasizes professional communication and is designed to provide graduates with the theoretical as well as practical applications today's industry is seeking. It develops graduates for career opportunities in industrial and technical sales, sales management, materials planning, quality assurance, purchasing, inventory control and branch/operations management. Students complete a set of required courses and either three concentrations, at least one of which must be technical, or a technical concentration and an academic minor in a related field which is chosen with adviser approval. The program is National Association of Industrial Technology accredited. Advising or additional information is available within the school.

An active articulation agreement exists between this program and Washtenaw Community College. See page 11 for further details.

General Education Requirements.....	40 hours
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See page 46 for further information regarding General Education requirements.

Major Requirements.....	66-75 hours
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Required Courses.....	39 hours
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ID140 Introduction to Wholesale Distribution (3 hrs)
ID240 Profit Strategies in Distribution (3 hrs)
ID340 Relationships in Wholesaling (3 hrs)
ID345 Industrial direct Response (3 hrs)
ID346 Industrial Climate (3 hrs)
ID387 Cooperative Education in Interdisciplinary Technology (3 hrs)
ID391 Wholesale Account Development (3 hrs)
ID440 Inventory Strategies in Distribution (3 hrs)
ID444 Quality Planning in Distribution (3 hrs)
ID448 Wholesale Policy and Distribution (3 hrs)
IS215 End-User Computing (3 hrs)
IS350 Enterprise Resource Planning (3 hrs)
MFG123 Manufacturing Processes and Method I (3 hrs)

Concentrations	27-36 hours
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Students may select concentrations from the following:

General Concentrations:
Communication (9 hrs)
International Business (9 hrs)
Management (12 hrs)
Purchasing/ Materials Management (12 hrs)

- Sales (12 hrs)
- Supply Chain Management (12 hrs)
- Technical Concentrations:
 - Apparels, Textiles Merchandising (9 hrs)
 - Electronics (9 hrs)
 - Information Systems (9 hrs)
 - Manufacturing (9 hrs)
 - Pharmaceutical and Sales - Combined Concentration (24 hrs)

Other concentrations with advisory approval:

Minor Requirements 0 hours
No minor is required.

University Elective Courses 9-18 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Information Assurance Program

Individuals selecting the information assurance degree will have the flexibility to focus on a concentration of classes that will prepare them for employment after graduation or to take that next step to an advanced degree. There are three unique concentrations to this degree; they are IA management, applied IA and IA cryptography.

The unique interdisciplinary nature of information assurance requires a diverse educational approach. The purpose of this undergraduate interdisciplinary program is to:

1. Meet society's need for educated professionals in information assurance.
2. Provide its graduates with the knowledge and skills required to protect the informational technology needs of society which includes all government branches and the private sector.
3. To propagate a new generation of research scientists in information assurance.

As a National Security Agency (NSA) Academic Excellence in Information Assurance Education, the program offers tremendous opportunities that are excellent preparation for an advanced degree in Information Assurance.

What is Information Assurance?

The term information assurance encompasses the scientific, technical and management disciplines required to ensure computer and network security, such as:

- Systems/network administration and operation
- Systems security engineering
- Information assurance systems and product acquisition
- Cryptography
- Threat and vulnerability assessment (includes risk management)
- Web security
- Computer emergency response team operations
- Information assurance training, education and management
- Computer forensics
- Defensive information operations

NSA Center of Academic Excellence

Eastern Michigan University's Center of Academic Excellence is one the 78 federally designated Centers of Academic Excellence in Information Assurance Education in the nation. This valued designation provides the students with a wealth of research, scholarship and educational opportunities. The National Centers of Academic Excellence in Information Assurance Education (CAE-IAE) Program is an outreach program designed and operated by the National Security Agency (NSA) and the Department of Homeland Security (DHS) in support of the President's National Strategy to Secure Cyberspace. The goal of the program is to reduce vulnerability in our national information infrastructure by promoting higher education in information assurance.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 84 hours

Foundation Course 27 hours

- COSC105 Everyday Computing and Social Responsibility (3 hrs)
- COSC111 Introduction to Programming (3 hrs)
- COSC211 Programming Data Structures (3 hrs)
- IA103 Information Security Overview (3 hrs)
- IA202 Risk-Vulnerability Analysis (3 hrs)
- MATH170 Elementary Statistics (3 hrs)
- MGMT202 Business Communication (3 hrs)
- NITA210 Concepts of Network and Business Technology (3 hrs)
- NITA212 Open Source Platform and Network Administration (3 hrs)

One concentration form the following :

Information Assurance Management: Concentration for Second Admission

Information assurance management will enable the student to focus on management of information systems. The practice of vulnerability, risk, countermeasures and ethics enable the IA manager to meet cyber security in the 21st century. The management of information in today's business, industry, government, education and other related fields is how persons in positions of trust manage information systems and apply secure computing to their business enterprise. This concentration of study will enable that management oriented student to apply secure computing concepts in the protection of cyberspace.

Concentration Courses 39 hours

- ENGL324 Principles of Technical Communication (3 hrs)
- IA329 Policy Development in Info Security (3 hrs)
- IS350 Enterprise Resource Planning (3 hrs)
- IS413 Information Technology Infrastructure and Security (3 hrs)
- IS425 Project Management (3 hrs)
- LEGL413 The Law and the Internet (3 hrs)
- MGMT386 Organizational Behavior and Theory (3 hrs)
- MGMT403 Managerial Communication: Theory and Application (3 hrs)
- MGMT480 Management Responsibility and Ethics (3 hrs)
- NITA422 End-User Systems: Planning and Design (3 hrs)

One course from the following:

- CTAC224 Public Speaking (3 hrs)
- CTAC225 Listening Behavior (3 hrs)
- CTAC227 Interpersonal Communication (3 hrs)
- CTAC350 Persuasion (3 hrs)

Internship in MGMT, IS, CS or STS (6 hrs)

Applied Information Assurance: Concentration for Second Admission

Applied information assurance management prepares the student with hands-on applications for analysis, prevention, deterrence and countermeasures of information security and that integrity in the global arena. Students who select this concentration of study will find that hands on application of classes will enable them to embrace the concepts studied in lecture format and apply those concepts in a laboratory setting. This concentration also provides an opportunity to conduct directed research as a final project.

Concentration Core 39 hours

- COSC374 Applied Cryptography (3 hrs)
- IA325 Cyber Crime Investigation I (3 hrs)
- IA327 Computer Forensics I (3 hrs)
- IA329 Policy Development in Information Assurance (3 hrs)
- IA413 Introduction to Research in Information Assurance (3 hrs)
- IA414 Applied Research Project (3 hrs)
- IS413 Information Technology Infrastructure and Security (3 hrs)
- LEGL413 The Law and the Internet (3 hrs)
- NITA344 Administration of Computer Systems (3 hrs)

NITA412 Linux Security Administration (3 hrs)
NITA422 End-User Systems: Planning and Design (3 hrs)

One course from the following:
BMMT496 Records Administration Using Database (3 hrs)
IS380 Introduction to Databases (3 hrs)

One course from the following:
CTAC224 Public Speaking (3 hrs)
CTAC225 Listening Behavior (3 hrs)
CTAC227 Interpersonal Communication (3 hrs)
CTAC350 Persuasion (3 hrs)
ENGL324 Principles of Technical Communication (3 hrs)
MGMT403 Managerial Communication: Theory and Application (3 hrs)

Information Assurance Encryption: Concentration for Second Admission

The sustained and rapid advance of information technology in the 21st century dictates that adoption of a flexible and adaptable cryptographic strategy for protecting national security information. To complement the existing policy for the use of the advanced encryption standard (AES) to protect national security systems and information as specified in The National Policy on the use of the Advanced Encryption Standard (AES) to Protect National Security Systems and National Security Information (CNSSP-15)

Over the past 30 years, public key cryptography has become a mainstay for secure communications over the Internet and throughout many other forms of communications. It provides the foundation for both key management and digital signatures. In key management, public key cryptography is used to distribute the secret keys used in other cryptographic algorithms (e.g., DES). For digital signatures, public key cryptography is used to authenticate the origin of data and protect the integrity of that data. For the past 20 years, Internet communications have been secured by the first generation of public key cryptographic algorithms developed in the mid-1970s. Notable, they form the basis for key management and authentication for IP encryption (IKE/IPSEC), Web traffic (SSL/TLS) and secure electronic mail.

Information assurance encryption will prepare the students for masters or doctoral work. The student may want to teach upon completion of the degree or enter into the area of information security research. This block also provides an opportunity conduct directed research as a final project.

Concentration Courses 37 hours

COSC314 Computational Discrete Structures (3 hrs)
IA413 Introduction to Research in Information Assurance (3 hrs)
IA414 Applied Research Project (3 hrs)
IS413 Information Technology Infrastructure and Security (3 hrs)
LEGL413 The Law and the Internet (3 hrs)
MATH120 Calculus I (4 hrs)
MATH121 Calculus II (4 hrs)
MATH205 Math Structure for Computer Science (4 hrs)
MATH319 Mathematical Modeling (4 hrs)

*MATH409 Cryptology (3 hrs)
One course from the following:
CTAC224 Public Speaking (3 hrs)
CTAC225 Listening Behavior (3 hrs)
CTAC227 Interpersonal Communication (3 hrs)
CTAC350 Persuasion (3 hrs)
ENGL324 Principles of Technical Communication (3 hrs)
MGMT403 Managerial Communication: Theory and Application (3 hrs)

Electives 18-20 hours

Suggested electives include MGMT386, IA326, IA328 and BMMT396

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
** Student must complete math sequence prior to taking Cryptology.*

Network and Information Technology Administration Major

The major in network and information technology administration addresses changing demands to administer information and its delivery systems. The program prepares individuals for positions in network administration, network security, project management, client/customer support and training and other positions in the career path. Confidentiality, integrity and availability of information and networks are emphasized. The program also emphasizes writing in a professional manner.

General Education Requirements 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements 3 hours
BMMT201 Microcomputers for Business Applications (3 hrs)

Major Requirements 51 hours

Network and Administration 21 hours
BMMT496 Records Administration Using Database Systems (3 hrs)
CMT305 Communication Transmission Systems (3 hrs)
NITA210 Concepts of Network and Business Technology (3 hrs)
NITA344 Administration of Client/Server Networks (3 hrs)
NITA387 Cooperative Education in Business Education (3 hrs)
NITA422 Network: Planning and Design (3 hrs)
NITA495 Network: Implementation and Evaluation (3 hrs)

Business and Technology Foundations 18 hours
ACC240 Principles of Financial Accounting (3 hrs)
BMMT396 Information and Media Administration (3 hrs)
COSC111 Introduction to Programming (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
STS224 Solving Quantitative Problems in Technology (3 hrs)

Restricted Elective Courses 12 hours
Select restricted electives in consultation with Network and information Technology Administration program advisers:
CMT408 Telephone Technology (3 hrs)
CMT409 Emerging Technologies in Storage and Retrieval (3 hrs)
COSC205 Managing Computer Hardware & Software (3 hrs)
NITS212 Open Source Platform and Network Administration (3 hrs)
NITA379 Multinetwork Connectivity (3 hrs)
NITA379 Special Network Servers (3 hrs)
NITA412 Linux Security Administration (3 hrs)
Other options recommend by adviser

Minor Requirements 0 hours
No minor is required.

University Elective Courses 30 hours

Program Total 124 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Paralegal Major

The paralegal major focuses on the skills necessary for the graduate to work under the supervision and direction of an attorney with the understanding that the practice of law by lay persons is strictly prohibited. Students get inside the law and develop skills including proficiency in legal research, writing and analysis, drafting legal instruments and pleadings, interviewing clients and witnesses, doing discovery, preparing for trial and using computer-assisted research tools. Employment opportunities are excellent in law firms, corporations, banks, human resource offices, hospitals, state and federal governments and court systems. This major offers professional training and lays a foundation for a career in the legal field. It also qualifies as a prelaw major. This program is approved by the American Bar Association.

For students who have earned a prior degree, the paralegal major can be pursued through a second bachelor's degree. The completion of 50 hours of study is required for the second bachelor degree. This 50 hours must include the "required courses" and the "business and information processing core." The remaining hours are to be selected from either restricted University election courses or University elective courses.

Active articulation agreements exist between this program and Delta Community College, Henry Ford Community College, Jackson Community College, Macomb Community College, Oakland Community College and Washtenaw Community College. See page 11 for further details.

Secondary Admission and Retention Policy

Students who wish to be paralegal (legal assistant) studies program majors must apply for admission to the program. Students may be admitted to the program in the fall or winter terms. Applications for a winter term will be due by Dec. 1 of the preceding fall term. Applications for a fall term will be due by April 1 of the preceding winter term.

Program Admission Requirements

Program admission criteria are:

1. Admission to the University as an undergraduate or second bachelor's degree candidate
- *2. Completion of ENGL121 with a grade of B or higher
3. Completion of LEGL211 Introduction to Paralegalism and Legal Terminology, with a grade of B- or higher
4. Completion of LEGL304 Legal Writing, Research and Analysis I with a grade of C+ or higher
5. A cumulative GPA of at least 2.5 on a 4.0 scale

Students satisfying these criteria are eligible to apply for admission to the program, but admission is not guaranteed.

Program Retention Policy

In addition to secondary admission requirements, Program majors will be required to:

1. Complete each program core course (e.g., all courses having an LEGL prefix [except LEGL211 and LEGL304 — see above]), with a minimum grade of C
- †2. Maintain a cumulative GPA of at least 2.5 on a 4.0 scale
- †3. Maintain a GPA within the major of at least 2.5 on a 4.0 scale

Note:

*Students applying for admission to the program as second bachelor's degree candidates must present evidence of having completed an acceptable college-level English composition course with a grade of B or higher. A remedial English composition or writing course is not an acceptable college-level English composition course.

†A student whose cumulative GPA or cumulative major GPA falls below 2.5 will be placed on program probation for the next succeeding term. If the student fails to raise his or her cumulative GPA, cumulative major GPA or both, as the case may be, to 2.5 or higher with the grades earned during the probationary term, the student will be dismissed from the program. For purposes of this policy, a student who is placed on program probation as the result of a deficient GPA at the close of a winter term will have until the close of the next fall term to raise his or her GPA to 2.5 or higher. If a student earns lower than a C in any program core course (except LEGL211 and LEGL304 — see

above), the student will be allowed to repeat the course twice. If the student fails to earn a C or better in the repeated courses, the student will be dismissed from the program.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirements6 hours
One course from the following:
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
One course from the following:
SOCL105 Introductory Sociology (3 hrs)
SOCL202 Social Problems (3 hrs)

Major Requirements..... 72 hours

Required Courses 33 hours

- LEGL211 Introduction to Paralegalism and Legal Terminology (3 hrs)
- LEGL212 Law Office Administration and Technology (3 hrs)
- *LEGL304 Legal Writing, Research and Analysis I (3 hrs)
- LEGL305 Advanced Legal Writing, Research and Analysis II (3 hrs)
- LEGL306 Advanced Legal Writing, Research and Analysis III (3 hrs)
- LEGL311 Probate, Estates and Wills (3 hrs)
- LEGL313 Family Law (3 hrs)
- LEGL404 Court Rules, Forms and Drafting Contracts (3 hrs)
- LEGL405 Civil Litigation, Investigation and Procedure I (3 hrs)
- LEGL406 Civil Litigation, Investigation and Procedure II (3 hrs)
- LEGL416 Legal Assistant Internship (Paralegal) (3 hrs)

Restricted University Elective Courses 21 hours

- 21 hours from the following:
- BMMT220 Word Information Processing (3 hrs)
 - BMMT396 Information and Media Administration (3 hrs)
 - BMMT497/498/499 Independent Study (1/2/3 hrs)
 - CTAC357 Interviewing as Communication (3 hrs)
 - LAW293 Legal Environment of Business (3 hrs)
 - LAW393 Law of Business Enterprises (3 hrs)
 - LAW403 Employment Law (3 hrs)
 - LEGL278/278/478 Special Topics (2 hrs)
 - LEGL279/379/479 Special Topics (3 hrs)
 - LEGL315 Land Transaction and Real Estate for Paralegals (3 hrs)
 - LEGL413 The Law and the Internet (3 hrs)
 - LEGL417 Legal Assistance Center Clinical Experience (3 hrs)
 - LEGL415 Bankruptcy Law (3 hrs)
 - LEGL479 Women and the Law (3 hrs)
 - NITA210 Concepts of Network/Business Technology (3 hrs)
 - PHIL355 Philosophy of Law (3 hrs)
 - PLSC301 The American Legal System (3 hrs)
 - PLSC312 American Constitutional Law I (3 hrs)
 - PLSC313 American Constitutional Law II (3 hrs)
 - PLSC341 International Law (3 hrs)
 - PLSC385 Judicial Process and Behavior (3 hrs)
 - PLSC412 Comparative Legal Systems (3 hrs)
 - PLSC456 Criminal Law I (3 hrs)

Business and Information Processing Core..... 18 hours

- ACC240 Principles of Financial Accounting (3 hrs)
- BMMT201 Microcomputers for Business Applications (3 hrs)
- BMMT396 Information and Media Administration (3 hrs)
- BMMT496 Records Administration Using Database Systems (3 hrs)
- STS201 Microcomputers (3 hrs)
- STS224 Solving Quantitative Problems in Technology (3 hrs)

Minor Requirements 0 hours
No minor is required.

University Elective Courses6 hours
Program Total..... 124 hours

Note:
*LEGL304 meets the writing intensive requirement.

Technology and Design Education Major

K-12 Teacher Certification

The technology and design major prepares teachers of technology education for grades K-12. All graduates with this major qualify for a Michigan Department of Education Secondary Provisional Certificate with an endorsement in technology and design. Graduates may also qualify for a vocational endorsement by completing 16 hours of directly related technical course work and having two years of occupational experience in employment related to the area of study. Options for cooperative work experience are available to students as partial credit toward that occupational requirement.

This major must be completed in conjunction with the technology education curriculum. Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in technology and design, certification code TX. The Michigan Test for Teacher Certification (MTTC) covering this field is No.88 "Technology and Design."

An active articulation agreement exists between this program and Washtenaw Community College. See page 11 for further details.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Major Requirements..... 36 hours
CMT121 Graphic Communication (3 hrs)
CNST201 Construction Systems (3 hrs)
ELEC200 Circuit Analysis I (3 hrs)
MFG123 Manufacturing Processes and Methods I (3 hrs)
TEDU103 Structures and Design in Technology (3 hrs)
TEDU106 Processing Technology (3 hrs)
TEDU114 Information and Control Technology (3 hrs)
TEDU118 Energy and Transportation Technology (3 hrs)
TEDU246 Safety in Technology and Vocational Education (2 hrs)
TEDU250 Foundations of Technology and Industrial Vocational Education (3 hrs)
TEDU350 Curriculum in Technology and Industrial Vocational Education (3 hrs)
TEDU450 Solving Technological Problems (3 hrs)
Elective in technology (requires adviser permission) (1 hr)

Minor Requirements 20-25 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs.

Professional Studies 33 hours
Pre-Admission Phase: The Learner and the Community:..... 8 hours
Courses that may be taken before formal admission to the teacher education program
One hundred clock hours of approved pre-student teaching field experiences
EDPS322 Human Development and Learning (4 hrs)
FETE201 Field Experience I (1 hr)
SPGN251 Education of Students with Exceptionalities (3 hrs)
Courses that require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context:..... 6 hours
EDPS340 Introduction to Assessment and Evaluation (3 hrs)
SOFD328 Schools in a Multicultural Society (3 hrs)

Phase II: Content Methods, Literacy and Technology:..... 7 hours
FETE402 Field Experience III: Secondary (1 hr)
RDNG311 Teaching Reading in the Secondary School (3 hrs)
TEDU460 Methods of Teaching Technology and Vocational Education (3 hrs)
Phase III: Capstone Experience:..... 12 hours
EDUC492 Student Teaching (12 hrs)

University Elective Courses0 hours
Program Total..... 129-134 hours

Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Technology Management Major

The technology management program is designed for transfer students with an associate of applied science degree. The interdisciplinary curriculum provides the necessary foundation to meet the changing needs of management in a variety of fields; ranging from business and health, to criminal justice, environmental sciences, automotive technology and computer service technology.

An active articulation agreement exists between this program and Delta Community College, Henry Ford Community College, Jackson Community College, Macomb Community College, Monroe County Community College, Oakland Community College, Schoolcraft College, Washtenaw Community College and Wayne County Community College District. See page 11 for further details.

General Education Requirements..... 40 hours
See page 46 for further information regarding General Education requirements.

Additional Requirement9-12 hours
ECON201 Principles of Macroeconomics (3 hrs)
ECON202 Principles of Microeconomics (3 hrs)
One course from the following :
MATH118 Linear Models and Probability (3 hrs)
STS224 Solving Quantitative Problems in Technology (3 hrs)
Must take this course or a proficiency exam:
STS201 Microcomputer Applications in Technology (3 hrs)

Major Requirements..... 57-76 hours
Core Courses 15 hours
TM130 Introduction to Technology Management (3 hrs)
TM212 The Management of Technological Change (3 hrs)
TM311 Information Technology Management and Organizations (3 hrs)
TM314 A Sociotechnical Systems Approach to Process Improvement (3 hrs)
TM415 Senior Seminar in Technology Management (3 hrs)
Technology Management Elective Courses..... 12-15 hours
Twelve to 15 hours from the following:
ACC130 Accounting for Nonbusiness Majors (3 hrs)
ACC240 Principles of Financial Accounting (3 hrs)
ACC241 Principles of Managerial Accounting (3 hrs)
Entrepreneurship
FIN350 Principles of Finance (3 hrs)
FIN358 Analysis of Financial Statements (3 hrs)
LAW293 Legal Environment of Business (3 hrs)
LAW403 Employment Law (3 hrs)
MKTG360 Principles of Marketing (3 hrs)
MKTG369 Advertising (3 hrs)
MKTG473 Marketing and Product Innovation (3 hrs)
MGMT384 Human Resource Management (3 hrs)
MGMT386 Organizational Behavior and Theory (3 hrs)

- MGMT480 Management Responsibility and Ethics (3 hrs)
- TM308 Seminar in Technological Impacts (3 hrs)
- TM377/378/379 Special Topics (1/2/3 hrs)
- TM387 Cooperative Education (3 hrs)
- TM477/478/479 Special Topics (1/2/3 hrs)

Technical Concentration30-46 hours

The following technical specializations from two-year institutions may be transferable into this concentration. These technical specializations will include, but are not limited to, the following areas:

- Automotive service technology
- Biomedical engineering technology
- Computer service technology
- Correctional science
- Criminology
- Emergency medical technician
- Environmental technology
- Fire technology
- Fluid power technology
- Graphic design technology
- Health information technology
- Laser-electro optics
- Photographic technology
- Public Safety technology
- Refrigeration and air conditioning technology
- Telecommunication technology

Minor Requirements0 hours

No minor is required.

University Elective Courses0-18 hours

Program Total124-128 hours

Note:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

Administrative Management Minor

Required Courses 12 hours

- BMMT395 Administering Workplace Systems and Technology (3 hrs)
- BMMT396 Information and Media Administration (3 hrs)
- BMMT310 Word/Information Processing Administration (3 hrs)
- BMMT387 Cooperative Education (3 hrs)

Restrictive Elective Courses9 hours

Nine hours from the following:

- BMMT220 Word/Information Processing Administration (3 hrs)
- BMMT496 Records Administration Using Database (3 hrs)
- HLAD305 The U.S. Health Care System (3 hrs)
- HLAD310 Administration of Health Care Organizations (3 hrs)
- HLAD425 Decision Making for Health Administrators (3 hrs)
- LAW293 Legal Environment of Business (3 hrs)
- LEGL211 Introduction to Paralegalism and Legal Terminology (3 hrs)
- LEGL212 Law Office Administration and Technology (3 hrs)
- MGMT388 Introduction to Entrepreneurship (3 hrs)
- MGMT480 Management Responsibility and Ethics (3 hrs)
- MGMT488 Field Studies in Entrepreneurship (3 hrs)
- MKTG464 Supply Chain Management (3 hrs)
- NITA210 Concepts of Network and Business Technology (3 hrs)

Minor Total 21 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Apparel, Textiles and Merchandising Minor

Required Courses 12 hours

- ATM118 Apparel Studio (3 hrs)
- ATM145 Introduction to Apparel and Textile Merchandising (3 hrs)
- ATM235 Introductory Textiles (3 hrs)
- ATM255 Apparel Analysis (3 hrs)

Restricted Elective Courses 12 hours

One course from each of the following areas:

- I. Construction skills
 - ATM302 Fashion Manufacturing Techniques (3 hrs)
 - ATM392 Pattern Design (3 hrs)
 - ATM460 Tailoring (3 hrs)
- II. Methodology
 - ATM390 Visual Merchandising (3 hrs)
 - HECR499 Directed Study (3 hrs)
- III. Social-psychological-historical
 - ATM135 Cultural Study of Dress (3 hrs)
 - ATM380 Fashion of the Haute Couture (3 hrs)
- IV. Textiles application
 - ATM119 Early American Textiles (3 hrs)
 - ATM404 Advanced Textiles (3 hrs)
 - ATM265 Merchandising of Interior Furnishings (3 hrs)

Minor Total 24 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Graphic Communication Minor

This minor is designed to provide technical communication skills to majors in fields such as graphic design and journalism. The electives in the minor are diverse and extensive enough to allow for individual flexibility.

Required Courses 11 hours

- CMT104 Introduction to Communication Technology (2 hrs)
- CMT121 Graphic Communication (3 hrs)
- CMT204 Photographic Communication (3 hrs)
- CMT207 Digital Imaging Reproduction (3 hrs)

Elective Courses 11-12 hours

Electives selected with an adviser to equal 11-12 credit hours from the areas of:

- Communication Technology
- Art
- Telecommunication and Film
- Written Communication
- Journalism/ Public Relations
- Interior Design
- BMMT
- CAD/CAM
- ELEC
- Advertising
- Marketing/Management

Minor Total 22-23 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.

Hotel and Restaurant Management Minor

Required courses	15 hours
HRM103 Introduction to Hospitality (3 hrs)	
HRM150 Sanitation in the Hospitality Industry (2 hrs)	
HRM180 Foundations of Food Preparation (3 hrs)	
HRM268 Hotel Operations Management (3 hrs)	
HRM287 Cooperative Education (1 hr)	
HRM340 Cost Controls in the Hospitality Industry (3 hrs)	
Electives	6 hours
<i>Electives chosen from within the HRM specialization courses</i>	
Program Total.....	21 hours

Network and Information Technology Administration Minor

Required Courses	21 hours
BMMT201 Microcomputers for Business Education (3 hrs)	
BMMT396 Information and Media Administration (3 hrs)	
BMMT496 Records Administration Using Database (3 hrs)	
NITA210 Concepts of Network and Business Technology (3 hrs)	
NITA212 Open Systems Platform and Network Administration (3 hrs)	
NITA344 Administration of Computer Systems (3 hrs)	
STS224 Solving Quantitative Problems in Technology (3 hrs)	
Minor Total.....	21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.

Technology and Design Education Minor

Elementary and Special Education-Elementary Teacher Certification

Successful completion of this 24 credit-hour minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in technology and design, certification code TX. The Michigan Test for Teacher Certification (MTTC) covering this field is No.88 "Technology and Design."

Required Courses	24 hours
TEDU250 Foundations of Technology and Vocational Education (3 hrs)	
†TEDU253 Technology Education for Children (3 hrs)	
TEDU354 Experiences in Technology for Children (2 hrs)	
TEDU355 Seminar in Technology for the Elementary School (2 hrs)	
<i>Twelve hours from the following:</i>	
CMT121 Graphic Communication (3 hrs)	
TEDU103 Structures and Design in Technology (3 hrs)	
TEDU106 Processing Technology (3 hrs)	
TEDU114 Information and Control Technology (3 hrs)	
TEDU118 Energy and Transportation Technology (3 hrs)	
<i>Select a minimum of two hours from the following:</i>	
CMT204 Photographic Communication (3 hrs)	
TEDU152 Arts and Crafts (3 hrs)	
TEDU350 Curriculum in Technology and Vocational Education (3 hrs)	
TEDU452 Principles of Vocational Education (3 hrs)	
TEDU497 Directed Study — Technology Education (1 hr)	

Minor Total..... 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
†Satisfied in professional studies in elementary program.

Technology and Society Minor

This minor is interdisciplinary in nature and provides students majoring in science or technology with an understanding of the societal impact of existing and emerging technologies. While housed in the Department of Interdisciplinary Technology, the minor utilizes contributions from several departments including biology, chemistry, computer science, economics and history.

Required Courses	15 hours
<i>One course from the following:</i>	
COSCI01 Computer Science Concepts and Practical Applications (3 hrs)	
COSCI45 Introduction to FORTRAN Programming (3 hrs)	
HIST290 Introduction to the History of Technology (3 hrs)	
STS150 Understanding Technology (3 hrs)	
STS495 Technology, Values and the Future (3 hrs)	
TM308 Seminar in Technological Impacts (3 hrs)	

Restricted Elective Courses 9 hours
Three courses from the following, with at least one course from each subgroup, A and B:

Subgroup A	
BIOL224 Principles of Conservation (3 hrs)	
CHEM415 Environmental Chemistry (3 hrs)	
ECON337 Energy Economics and Policies (3 hrs)	
GPLN215 Introduction to Urban and Regional Planning (3 hrs)	
GEOG310 Energy Awareness (3 hrs)	
GEOG440 World Food Systems (3 hrs)	
SOCL334 Population (3 hrs)	
Subgroup B	
ANTH379 Special Topics (3 hrs)	
CTAT446 Contemporary Problems in Electronic Media (3 hrs)	
ECON386 Technology and Economic Growth (3 hrs)	
GEOG100 Future Worlds (3 hrs)	
GEOG235 Economic Geography (3 hrs)	
ESSC495/GPLN495 Environmental Assessment and Planning (3 hrs)	
PHIL380 Philosophy of Science (3 hrs)	
PLSC381 Public Policy Analysis (3 hrs)	
PLSC382 Politics and the 21st Century (3 hrs)	
PSY350 Environmental Psychology (3 hrs)	
PSY351 Industrial Psychology (3 hrs)	
SOCL307 Sociology of the Workplace (3 hrs)	
SOCL336/ANTH336 Social and Cultural Change (3 hrs)	
STS420 Women and Technology (3 hrs)	
STS201 Microcomputer Applications in Technology (3 hrs)	

Minor Total..... 24 hours

Department of Military Science and Leadership



Department Head: LTC Joseph Orecchio
 Address: 18 Roosevelt Hall
 Phone: 734.487.1020
 Web site: <http://armyrotc.com/edu/eastemmi/index.htm>

See page 333 for course descriptions.

The Department of Military Science and Leadership offers a four-year and two-year program that prepares students for commissioning as second lieutenants in the United States Army, Army Reserve or National Guard. Emphasis is given to the development of the student as a leader and a manager, capable of organizing and motivating others.

The program is pursued as a complement to the student's academic major. If the program is successfully completed, the student may be commissioned as an officer upon graduation.

Students must complete all of the military science and leadership courses unless granted advanced placement for the 100- and 200-level classes.

ROTC scholarships are available and awarded on a "best qualified" basis. Scholarships cover payment of tuition, fees, texts and supply costs related to the student's curriculum for the period of award. Also, a monthly subsistence allowance up to \$500 is paid for each school month during the period of the scholarship. Application can be made by contacting the Department of Military Science and Leadership.

The two-year program is designed for students transferring from community colleges and other students who were not enrolled in military science and leadership courses during their first two years of college. Applicants complete a five-week training program during the summer months, which takes the place of the on-campus MSL100- and 200-level courses. While in summer training, the student remains a civilian but earns Army pay and travel allowances. Upon completing the program, the student may be granted eight credit hours upon the recommendation of the Department of Military Science and Leadership and may apply for entry into the MSL300-level courses. Students may compete for two-year ROTC scholarships while at summer training. Applications for the two-year program are accepted from December through May.

The Simultaneous Membership Program (SMP) is a co-op work experience program where advanced ROTC students are assigned to local Army Reserve or National Guard units. One weekend a month students learn leadership and management skills by drilling with the unit. For this experience, students earn an additional \$250 per month. SMP is an excellent opportunity to learn applied management skills.

Veterans can qualify for advanced placement credit directly into MSL301. Applicants should contact the department for acceptance into MSL301 at the earliest possible time before the next full semester. In addition, veterans can qualify for Montgomery GI Bill benefits adding anywhere from \$650-\$1,200 per school month.

All uniforms are provided to the student without cost. Additionally, MSL300 and -400 participants receive \$450-\$500 per month during the school year and are paid at one-half the rate of a second lieutenant while attending the Leadership Development and Assessment course at Fort Lewis, Wash. Armed forces veterans may receive the \$450-\$500 per month pay in addition to any other veterans benefits they are receiving.

Special Requirements

Admission into the advanced program (MSL301, MSL302, MSL401 and MSL402) requires that all students undergo a complete physical examination and have completed the basic course or its equivalent.

The criteria for continuance is that all students maintain a 2.5 GPA or better, and pass the Army Physical Fitness Test.

The fieldwork criteria is that all members of the advanced program participate in a field training exercise (FTX) each semester.

In the summer, between the third and fourth academic years, students will attend The Leadership Development and Assessment course at

Ft. Lewis, Wash., in which their leadership skills are evaluated against the skills of other cadets across the nation.

Nursing students within the University nursing program will attend the Nurse Summer Training Program (NSTP) in addition to the advanced camp between the third and fourth years.

Credit Toward Graduation

The 12 hours of credit earned in the advanced program may be used as free elective credit. Requirements in certain majors and curricula will cause the ROTC student to take more than the minimum 124 credit hours for graduation. When finalizing their undergraduate program, students should consult an academic adviser within the department of their declared major.

Military Science and Leadership Minor

Required Courses	20 hours
MSL101 Foundations of Officership (2 hrs)	
MSL102 Basic Leadership (2 hrs)	
MSL201 Individual Leadership Studies (2 hrs)	
MSL202 Leadership and Teamwork (2 hrs)	
MSL301 Leadership and Problem Solving (3 hrs)	
MSL302 Leadership and Ethics (3 hrs)	
MSL401 Leadership and Management (3 hrs)	
MSL402 Officership (3 hrs)	

Students must take all of the above courses unless granted advanced placement. Students electing a minor in military science may not use this minor to fulfill the state secondary provisional certificate requirement of a teaching minor.

Minor Total.....	20 hours
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Definitions of Terms

Prerequisite (Prereq)

A requirement, usually completion of a course, which should be met before a student can register for a course.

Corequisite (Coreq)

A requirement, usually enrollment in a course, which should be undertaken at the same time as the course being described (if the corequisite has not been completed previously).

Concurrent Prerequisite (Concurrent Prereq)

See above definition for corequisite.

Course Descriptions

African American Studies Courses (AAS)

AAS101 Introduction to African American Studies 3 hrs

An introductory examination of the African American experience. Acquaints students with the trends, issues and forces that have shaped that experience; considers the concepts of cultural adaptation, institutional development and group self-definition; and surveys the contemporary status and condition of African Americans.

AAS102 Introduction to African Civilization 3 hrs

This course is designed to provide the student with an introductory knowledge of centers of African civilization from antiquity to the 1960s. Those centers include ancient Egypt, Songhai, Kilwa and Monomotapa.

AAS177/178/179 Special Topics 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American studies.

AAS201 Foundations of Knowledge in African American Studies 3 hrs

Examines the empirical and theoretical foundations of African American studies, the evolution of the field and the role of key scholars in its development.

AAS221 African American Social Movements 3 hrs

Explores the collective efforts undertaken by African Americans to elevate their group status in American society. Analyzes the struggle for human freedom through an examination of resistance to chattel slavery, the quest for civil rights and the response to structured inequality.

AAS231 Urbanization and the African American Community 3 hrs

Examines the urban African American community. Studies relevant migratory patterns and the impact of urbanization on the culture, politics, and economic status of African Americans. Considers public policy issues involving African Americans in an advanced industrialized society.

AAS232 Politics in the African American Experience 3 hrs

This course is designed to provide the student with a knowledge of Black political behavior in the United States in its evolution from protest to contemporary institutional politics.

AAS233 Public Policy and African Americans 3 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.

AAS243/PLSC243/WGST243 Black Women: Politics and Racism 3 hrs

This course examines American politics as it relates to African American women. The course analyzes ways in which political issues affect black women differently than African American men, white men and white women. Considerable attention is given to the definition of the political realm as opposed to the nonpolitical realm when discussing groups traditionally marginalized or excluded from political life.

AAS277/278/279 Special Topics 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American studies.

AAS297/298/299 Independent Study 1/2/3 hrs

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences.

Prereq: department permission

AAS301 Writing for African American Studies 3 hrs

This course will help students produce research papers, construct analytical reviews and perform documentary research needed to better explore

the literature, culture and institutional and social processes that define the field of African American Studies.

Prereq: ENGL121

AAS311 The African Diaspora 3 hrs

Examines the African diaspora — the dispersion of persons of African descent throughout the world. It studies the process of dispersion, examines select diasporic communities and considers the impact of the African presence on world development.

AAS312 African Civilization 3 hrs

This course is designed to provide the student with an interdisciplinary knowledge of centers of African civilization from antiquity to the 1960s. Those centers include ancient Egypt, Songhai, Kilwa and Monomotapa.

AAS313 Contemporary Africa: The Struggle and Prospects for Development 3 hrs

This course serves as a survey of Africa's contemporary political economy. In examining postcolonial developments, the course focuses on regional and national strategies for social transformation.

AAS351 The Social Context of African American Health 3 hrs

Examines the health status of African Americans. Explores the interplay between environment, biology and culture; folk and popular health practices; and the organization and delivery of health care.

AAS361 The African American Family 3 hrs

Examines the historical and contemporary forces shaping the African American family. Analyzes urbanization, economic transformations and institutionalized racism. Studies the role of the family in human survival and progress.

AAS362/PLSC362/WGST362 Black Women: Religion and Sexism 3 hrs

An introduction to the social and political role of Black women in African American religious institutions. Particular attention will be placed on how African American religion has limited the power of women. Additionally, the course will examine the historical evolution of the various major black denominations in America and their political and social roles in African American communities.

AAS370 Films of the African American Experience 3 hrs

This course examines African American literature that has been adapted to film. Film history about African American involvement in the industry, including filmmakers is studied. The course involves developing techniques of analyzing fiction and drama as well as film adaptations of the African American experience.

AAS377/378/379 Special Topics 1/2/3 hrs

Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American studies.

Prereq: department permission

AAS401 African American Studies Research Seminar 3 hrs
Provides intensive exposure to research methods in African American studies, and offers an opportunity for primary research in the field.

AAS402 African American Studies Internship Seminar 3 hrs
The African American Studies Internship Seminar is designed as a practicum in which majors and minors in African American Studies can acquire a practical experience of an African American organization.
Prereq: AAS101/201/233

AAS441 Law in the African American Experience 3 hrs
Examines the African American legal experience from the Atlantic slave trade to the present. Reviews the formation of the Constitution, the law of slavery, Reconstruction-era developments, Jim Crow segregation and recent legal trends in areas such as education, voting and employment. Emphasizes law as a social process.

AAS477/478/479 Special Topics 1/2/3 hrs
Each time offered, this course will explore a topic on an experimental basis, based on student interests and needs. This course can be used in completing requirements for the major or minor in African American studies.
Prereq: department permission

AAS497/498/499 Independent Study 1/2/3 hrs
Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences.
Prereq: department permission

Accounting Courses (ACC)

ACC130 Accounting for Nonbusiness Majors 3 hrs
Introduction to financial information generated by typical business organizations, with special emphasis on the use and interpretation of this information in managerial and financial decision-making processes. *May not be substituted for ACC240. Not open to students with credit for ACC240 or ACC241.*

ACC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ACC240 Principles of Financial Accounting 3 hrs
Use and development of financial information about economic organizations, with special emphasis on the use of financial statements and their creation in the business decision-making and reporting process.

ACC241 Principles of Managerial Accounting 3 hrs
Use and development of accounting information in managerial settings to achieve managerial goals. Use of managerial accounting tools such as budgets and cost analysis in typical business environments.

ACC244 Personal Tax Accounting 2 hrs
Introduction to federal and state income and social security tax problems of individuals. Practice on preparation of individual tax returns. *Credit toward a degree will not be permitted for both ACC244 and ACC344. (Business education majors may substitute this course for ACC344 with permission of their department head.)*

ACC246 Accounting for Public Administrators 3 hrs
Surveys the use of accounting to manage a public organization. Basic accounting principles, program budgeting and the construction of internal control systems.

ACC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ACC286 Cooperative Education in Accounting 1 hr
Accounting employment at a business or public organization imparting a practical experience in accounting. Position may be part-time, volunteer, or less than full-semester in duration. *Use on an accounting major or minor is not permitted. Offered on a credit/no-credit basis. Admittance by application only. This course may be repeated for credit.*
Prereq: department permission

ACC287 Cooperative Education in Accounting 3 hrs
One term of full-time or two terms of part-time employment at a business or public organization chosen for imparting practical experience in accounting. *Use on an accounting major or minor is not permitted. Offered on a credit/no-credit basis. Admittance by application only. This course may be repeated for credit.*
Prereq: department permission

ACC296 The Accounting Cycle and Profession 3 hrs
This course covers the accounting cycle process in manual and computerized environments. The course also explores various accounting occupations and other fundamental concepts, such as the time value of money.
Prereq: ACC240

ACC340 Intermediate Accounting 3 hrs
Examination of generally accepted accounting principles related to financial reporting of the assets, liabilities, equity and operating statement accounts of an organization. Concepts and theories that guide the recording, valuation and classification of transactions in an organization. Preparation and analysis of the balance sheet, income statement and statement of cash flows for an entity.
Prereq: ACC296, ACC240 and ACC241 or ACC501, FIN350 or department permission

ACC342 Managerial Cost Accounting 3 hrs
Accounting information for use in planning objectives and controlling operations. A framework for measuring managerial performance is developed through an analytic treatment of cost behavior under dynamic conditions by employing such devices as cost-volume-profit relationships, flexible budgeting and standards.
Prereq: ACC240 and ACC241 or ACC501

ACC344 Principles of Taxation 3 hrs
This course is an introductory level study of taxation of individuals, corporations and some other entities. 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: ACC240 and ACC241 or ACC501

ACC356 Accounting Information Systems 3 hrs
Concepts of a responsive information system, including principles of design, profitability and responsibility, accounting and control. Description of typical accounting systems and procedures within the business enterprise.
Prereq: ACC240 and ACC241 or ACC501, or department permission

ACC358 Analysis of Financial Statements 3 hrs
Analysis and interpretation of the financial statements and reports of various types of businesses and industries. Examination of the impact of using alternative accounting methods on reported profits, taxes and cash flows. Forecast of financial statements for planning purposes.
Prereq: FIN350

ACC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ACC442 Advanced Cost Accounting 3 hrs
Cost concepts on an advanced level such as standard costs-and-variance analysis; responsibility accounting, direct costing, overhead allocation, break-even; product pricing through return-on-investment methods; divisional income measurement; forecasting with statistical models; capital budgeting; and applications of mathematics to cost accounting problems.
Prereq: ACC342

ACC450 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: ACC240 and ACC241 or ACC501

ACC456 Accounting Information Systems Implementation and Projects 3 hrs
A capstone course for the accounting information systems major designed to develop expertise in the implementation of an accounting information system.
Prereq: ACC356 and IS380 or department permission

ACC475 International Accounting 3 hrs
Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting and specific accounting and auditing problems.
Prereq: ACC240 and ACC241 or ACC501

ACC477/478/479 Special Topics 1/2/3 hrs
Specialized accounting topics in relation to changes in the practice of accounting and its regulation by government agencies.
Prereq: ACC340/356 and department permission

ACC489 Accounting Internship 3 hrs
Directed full-time work experience in the accounting phase of a business organization. *Use on an accounting major or minor is not permitted. This course may be repeated once for additional credit. Offered on a credit/no-credit basis. To be used as an elective only; does not apply on a major or minor.*
Prereq: department permission

ACC491 Accounting Honors Thesis 3 hrs
A directed studies course for accounting honors students only. An in-depth research thesis or project under the direction of an accounting faculty member is required with an oral examination or form of presentation to the faculty and other interested parties upon completion of the thesis.
Prereq: final semester in undergraduate accounting honors program

ACC496 Financial Management and Controllership 3 hrs
This course is a capstone experience for the accounting major who wants to manage the information needs of an organization from the perspective of the controller, chief financial officer, or financial manager. Topics include: accountability for performance; budgeting and costs; managing cash and the treasury function; and enterprise and information systems. *Open to accounting-BBA majors only.*
Prereq/Coreq: ACC296, ACC340, ACC342, ACC356, ACC344/544 and senior standing

ACC497/498/499 Directed Studies 1/2/3 hrs
Directed study of a problem or group of problems in accounting not otherwise treated in departmental courses.
Prereq: department permission

School of Health Sciences Courses (AHPR)

AHPR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AHPR196 Introduction to Health Careers 2 hrs
An introductory course designed to familiarize the student with careers in the health sciences. Various

careers such as medical technology, nursing, dietetics, health administration, occupational therapy, medicine, clinical psychology, physical therapy and others will be presented by individuals in the respective disciplines. Education requirements, career opportunities, and clinical experience requirements will be highlighted.

AHPR200 Medical Terminology 1 hr
A detailed study of medical terminology, through which students will achieve a working medical vocabulary. Anatomical terms and terminology relating to diseases and disease processes will be presented. This course is designed for students entering a health-related education program, and is a prerequisite for admission to the occupational therapy program. Offered on a credit/no-credit basis.

AHPR277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AHPR377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AHPR477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AHPR497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Anthropology Courses (ANTH)

ANTH135 Introduction to Cultural Anthropology 3 hrs
The study of human adaptations to natural and cultural environments focusing upon a variety of societies. The basic institutions of human society such as kinship, religion, law, politics and economics will be examined.

ANTH140 Introduction to Physical Anthropology 3 hrs
A survey of the evolution of primates and hominids and a general introduction to physical anthropological themes relating to prehistoric and living humans.
Prereq: ANTH135

ANTH150 Introductory Archaeology 3 hrs
A general survey of the field of archeology; the methodologies and analyses employed in the study of prehistoric cultures.

ANTH177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ANTH200 Writing for Anthropology 3 hrs
This course will teach students the necessary writing and research skills for anthropology. Students will also learn how to use library resources for anthropological research.
Prereq: sophomore, junior or senior standing; ANTH135, ENGL121 and one additional anthropology course at the 100-, 200- or 300-level

ANTH208/SOCL208/WGST208 Minority Women in the United States 3 hrs
This course surveys the situation of and the conditions that affect the lives of four groups of minority women in the United States who are from diverse cross-cultural backgrounds: African American, Asian-American, Latin American and Native American. It focuses on the contemporary situation of these women and compares the four groups in terms of demographics, economic and occupational situations, education, family lives and relationship to the feminist movement.
Prereq: SOCL105 or ANTH135

ANTH210 History of Anthropological Theory 3 hrs
A survey of various theoretical approaches within the field of cultural anthropology. The course will span the period from the mid-19th century to the present, covering theoretical perspectives that have dominated European and American schools of anthropology.
Prereq: ANTH135

ANTH214/SOC214 U.S. Racial and Cultural Minorities 3 hrs
An introduction to the study of U.S. diversity with particular reference to the African American and Hispanic, and European and Asian immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority people; and proposed solutions of ethnic problems.

ANTH233 Cultures of Mesoamerica and the Caribbean 3 hrs
A regional, historical and topical survey of Mesoamerica (Mexico, Guatemala, Belize, El Salvador and Honduras) and Caribbean cultures.
Prereq: ANTH135

ANTH236 Peoples and Cultures of Africa 3 hrs
A regional, historical and topical survey of African cultures.
Prereq: ANTH135

- ANTH237 Native North American Cultures** 3 hrs
A regional, historical and topical survey of aboriginal North American cultures.
- ANTH248 Peoples and Cultures of the Pacific** 3 hrs
A regional, historical and topical survey of indigenous Pacific cultures.
Prereq: ANTH135
- ANTH260 Introduction to Archaeological Fieldwork** 3 hrs
One week of training in archaeological fieldwork.
Prereq: ANTH135, ANTH140 and departmental permission
- ANTH277/278/279 Special Topics** 1/2/3 hrs
An examination of topics in anthropology not normally covered in the curriculum. Students may elect this course several times, provided different topics are studied.
Prereq: ANTH135
- ANTH309 Culture and Personality** 3 hrs
An analysis of the manner in which group and cultural factors influence the growth and change of personality. The impact of personality types on group life. *Not open to those with credit in SOCL309.*
Prereq: SOCL105 or ANTH135
- ANTH329 Medical Anthropology** 3 hrs
Ways in which various cultures define, explain, and treat physical and psychic illness. Different approaches to curing including witchcraft, sorcery, spiritual and psychic healing, and the use of hallucinogens compared with contemporary medical practices.
Prereq: ANTH135 or department permission
- ANTH330 Anthropology of Law and Politics** 3 hrs
Comparative study of political systems in various societies, local-level politics, government and law; examined from an anthropological perspective.
Prereq: ANTH135 and sophomore standing
- ANTH336 Social and Cultural Change** 3 hrs
A survey of the theories and problems of change as they affect at the global, national and subcultural levels. *Not open to those with credit in SOCL336.*
Prereq: ANTH135 or SOCL105
- ANTH338 Anthropology of Religion** 3 hrs
The cross-cultural study of religious belief and ritual in various societies.
Prereq: ANTH135 and sophomore standing
- ANTH340 Language and Culture** 3 hrs
A study of the relation of language to social behavior and modes of thought in unilingual and multilingual speech communities.
Prereq: ANTH135 or LING201 or LNGE223
- ANTH345 Qualitative Methods** 3 hrs
A review and examination of social science research methods that entail fieldwork, participant observation, naturalistic experimentation and the analysis of cultural data. *Not open to those with credit in SOCL345.*
Prereq: ANTH135 or SOCL105 or department permission
- ANTH350 Ancient Civilizations of Mesoamerica** 3 hrs
A chronological and regional survey of the ancient civilizations of Mexico and northern Central America, including the Olmecs, Maya, Toltecs and Aztecs. Course themes include Mesoamerican archaeology, early state development and decline, social organization, economy and ecology, and the legacy of ancient Mesoamerica.
Prereq: ANTH135 and sophomore standing
- ANTH355/WGST355 Anthropology of Women** 3 hrs
This course focuses on the lives of women and theories of their positions in diverse cultural contexts. Issues of gender are also explored.
Prereq: ANTH135
- ANTH360 Archaeological Fieldwork** 5 hrs
Intermediate training in archaeological fieldwork.
Prereq: ANTH135, ANTH140 and departmental permission
- ANTH377/378/379 Special Topics** 1/2/3 hrs
An examination of topics in anthropology not normally covered in the curriculum in which the distinctive perspective and methodology of anthropology are emphasized. Students may elect this course several times, provided different topics are studied.
Prereq: ANTH135
- ANTH385 Culture of Japan** 3 hrs
An analysis of Japanese culture from a comparative perspective. The course presents the ethnological approach to cross-cultural understanding as applied to the study of Japanese culture. By contrasting and comparing insider and outsider analyses of Japanese behavior, the dynamics of cross-cultural research are documented and discussed.
Prereq: ANTH135 or department permission
- ANTH387 Cooperative Education in Anthropology** 3 hrs
Practical experience in industrial, business or government settings that provides job skills. *Offered on a credit/no-credit basis.*
Prereq: 12 hours of anthropology, six of which must be at the 300-level or above
- ANTH437 Kinship and Social Structure** 3 hrs
The comparative study of kinship and social structure in various societies.
Prereq: ANTH135, ANTH210 and one additional ANTH course at the 300-level
- ANTH439 Seminar in Anthropological Theory** 3 hrs
An intensive examination of theoretical approaches to the study of cultural phenomena. Emphasis will be placed upon the critical reading of primary source materials seminal to the development of various theoretical stances within the discipline of anthropology. This course will be organized around written and oral presentations by students.
Prereq: four courses in anthropology including ANTH140, ANTH200, ANTH210 and senior standing
- ANTH460 Advanced Archaeological Fieldwork** 6 hrs
Intensive training in archaeological fieldwork.
Prereq: ANTH135, ANTH150 and departmental permission
- ANTH465 Political Economy in Anthropology** 3 hrs
This history of how political economy has been used in anthropological research and a survey of political economic approaches to major anthropological topics.
Prereq: ANTH135 and ANTH210, sophomore standing
- ANTH477/478/479 Special Topics** 1/2/3 hrs
An examination of topics in anthropology not normally covered in the curriculum in which the distinctive perspective and methodology of anthropology are emphasized. Advanced students may elect this course several times, provided different topics are studied.
Prereq: ANTH135
- ANTH487 Cooperative Education in Anthropology** 3 hrs
Practical experience in industrial, business or government settings that provides job skills. *Offered on a credit/no-credit basis.*
Prereq: department permission
- ANTH497/498/499 Individualized Reading and Research in Anthropology** 1/2/3 hrs
Directed reading and research on problems within the field of anthropology.
Prereq: ANTH135 and department permission

Art Courses (ART)

- ART100 Art Appreciation** 3 hrs
The aim is to acquaint students with art philosophies, their elements, principles and values. *Non-art majors or minors only.*
- ART101 Introduction to Art** 3 hrs
Studio and lecture course designed to develop seeing and understanding of the formal and cultural aspects of the visual arts. Guided attendance at selected exhibitions on an optional basis may be provided. *Non-art majors only.*
- ART107 Art History Survey I** 3 hrs
A survey of the development of the visual arts from cave art through the gothic period.
- ART108 Art History Survey II** 3 hrs
A continuation of Art History Survey I from the Renaissance through modern times.

ART109 Survey of Non-Western Art 3 hrs
An introductory historical survey of the visual arts and architecture of cultures not directly linked to the artistic and cultural traditions of Western Civilization. Art works by the native inhabitants of Africa, Oceania, Asia and the Americas are examined for their historical and cultural significance.

ART122 Two-Dimensional Design 3 hrs
A foundation course dealing with an analytical approach to the study of the elements of design: color, line, shape, value and texture.

ART123 Drawing I 3 hrs
A beginning drawing course for students who plan to specialize in art. A variety of media and approaches help the student to achieve the control necessary in drawing. Individual problems are assigned and group criticism is frequent.
Prereq: art major or minor only

ART124 Drawing II 3 hrs
Emphasis is on study of composition as an extension of the principles explored in Drawing I. Imaginative organization is stressed. Extensive experimentation with various media. Subjects such as the human figure are introduced as drawing problems.
Prereq: ART123

ART131 Three-Dimensional Design 3 hrs
Basic study of three-dimensional structures and systems.

ART151 Reason and Revolution 3 hrs
An examination of the transition in political history, philosophy, art, literature and music from Puritan England and Louis XIV's France to Napoleon. Team taught by members of the Art and History departments. This course satisfies one art or one history requirement. See honors humanities courses.

ART165 Graphic Design for Nonmajors 3 hrs
Problems will explore fundamental design and basic production considerations and the development of a professional design thought process.

ART166 Ceramics for Nonmajors 3 hrs
A hands-on approach to provide students with the opportunity to develop skills and aesthetic understanding in forming, glazing and kiln stacking. The emphasis in this beginning course is on hand building forms; however, the use of the potter's wheel will be introduced the latter part of the semester.

ART167 Jewelry for Nonmajors 3 hrs
A hands-on approach to provide students with the opportunity to develop artistic and technical skills with metal and other jewelry materials.

ART177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may take this course more than once, provided different topics are studied.
Prereq: department permission

ART201 Introduction to Graphic Design I 3 hrs
Projects examine two-dimensional typographic space; language sequence and information hierarchy; type families and their structure; typographic aesthetic; typographic history. Introduces appropriate tools.
Prereq: ART122, ART123 and one art history course

ART205 Introduction to Graphic Design II 3 hrs
Projects examine type methodology; complex typographic systems; rhetorical devices; word-image structures; typographic history and theory. Introduces appropriate tools.
Prereq: ART201

ART210 Life Drawing 3 hrs
Study of the human form through drawing. Primarily, nude models are used for subject matter. Various media are explored in search of the figurative element.
Prereq: ART123 and ART124 or department permission

ART215 History of 19th Century Art 3 hrs
Begins with a survey of European art in the late 18th century and concludes with Post-Impressionism at the end of the 19th century.
Prereq: ART107 and ART108

ART216 History of 20th Century Art 3 hrs
A survey of the visual arts of the 20th century, from Post-Impressionism through the latest contemporary developments.
Prereq: ART215 or department permission

ART232 Representational Drawing 3 hrs
A course in analytical drawing emphasizing the use of volume, light and structure in the construction of a variety of representationally illusionistic objects and environments.
Prereq: ART124

ART235 Introduction to Textiles 3 hrs
An introductory textiles class dealing with concepts of design as they relate to fiber structures and fabric processes.
Prereq: ART122 and ART123

ART277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ART280 Introduction to Furniture Design 3 hrs
An introduction to furniture design and construction, with emphasis on traditional and modern woodworking techniques. This course will cover furniture design history, object aesthetics and fabrication processes.
Prereq: ART131 Three-Dimensional Design, department permission.

ART300 Art Integration for the Elementary Teacher 4 hrs
Understanding, appreciation and awareness of art in its varied contemporary and multicultural contexts. Emphasis on three main areas: a) appreciation and understanding of the subject; b) art concepts and processes, aesthetic education and their relationship to general education; and c) integration of art into the general classroom procedures to enhance learning. *Nonart majors only.*
Concurrent Prereq: CURR304

ART302 Intermediate Graphic Design I 3 hrs
Deals intensively with conceptual and technical issues; explores topics relevant to audience demographic; presents theories, philosophies, aesthetics and techniques related to mass-audience communication. Introduces appropriate methodologies.
Prereq: ART205

ART303 Intermediate Graphic Design II 3 hrs
Course analyzes symbol codes as learned and interpreted messages. Projects explore audience; context; sequence; and theories, philosophies, aesthetics, techniques and cultural references in symbol language message building. Introduces appropriate methodologies.
Prereq: ART205

ART304 Beginning Photographic Imagery 3 hrs
Introduction to photography as an art form. Basic camera and darkroom techniques demonstrated, with emphasis on exhibition printing. *Student must furnish own camera equipment.*
Prereq: ART122 and ART123

ART305 Printmaking 3 hrs
Acquaintance with graphic techniques; woodcut and silkscreen.
Prereq: ART123, ART124, ART122; art majors only

ART306 Printmaking 3 hrs
Advanced graphic techniques with emphasis on development of individual style through experimentation with etching and processes.
Prereq: ART305; art majors only

ART307 Ceramics 3 hrs
Basic ceramics, including wheel throwing and handbuilding techniques, compounding earthenware and stoneware clay bodies, formulating glazes, firing electric and gas kilns.
Prereq: ART231 or department permission

ART308 Ceramics 3 hrs
Advanced ceramic techniques, emphasis on personal expression, compounding of individual clay bodies and glazes, loading and firing of kilns.
Prereq: ART307; art majors only

ART310 Sculpture 3 hrs
Exploratory experiences in volume and space; the use of clay, stone, wood, metal, etc.
Prereq: ART231; art majors only

- ART311 Sculpture** 3 hrs
Continuing experiences in volume and space; further development of skills with sculpture materials and concepts.
Prereq: ART310; art majors only
- ART313 Painting** 3 hrs
Painting problems; development of technique and concepts through experimentation with painting media.
Prereq: ART122 and ART124; art majors only
- ART314 Watercolor I** 3 hrs
Intensive exploration of watercolor techniques with emphasis on developing individuality and self-expression related to the medium.
Prereq: ART122 and ART124; Art majors only
- ART316 Life Drawing** 3 hrs
Advanced study problems; the human form as composition and design; varied media.
Prereq: ART210; art majors only
- ART317 Teaching of Art** 3 hrs
Focuses on a comprehensive approach to art education and will include library research, readings, writings and discussions of current events aided by presentations of guest speakers. Final requirement: the development of a written personal philosophy pertaining to the teaching of art and the formulation of a general curriculum. *Not open to students on academic probation.*
Prereq: junior standing
- ART320 Jewelry** 3 hrs
Design and creation of jewelry by fabricating, casting, lapidary, stone setting and combination of metal and wood. Emphasis on the aesthetic aspect of decorative art objects.
Prereq: ART231 or department permission; art majors only
- ART321 Jewelry** 3 hrs
Processes and techniques applied toward a professional development in jewelry design. Advanced processes, casting and setting of precious stones.
Prereq: ART320 or equivalent
- ART323 Intermediate Photographic Imagery** 3 hrs
Advanced black and white techniques and alternative processes are demonstrated. Development of personal vision is realized through individual projects and discussion.
Prereq: ART304; art major or department permission
- ART324 Design and Development of Public Works of Art** 3 hrs
An experimental studio course in which students and instructors design, plan and execute urban environmental murals, sculpture, parks and malls.
Prereq: department permission
- ART330 Computer Imaging** 3 hrs
A studio course in the use of the computer as a will for the creation of works of art. Students will learn basic computer skill with a range of imaging software. Emphasis is placed on the applications of these skills to the production of digital art works.
Not open to freshmen or graduate students.
Prereq: ART122, ART124 and department permission
- ART331 Technology in Art Education** 3 hrs
This course prepares preservice art teachers for technology applications in art education. These applications include artmaking, inquiry, classroom management, communication, assessment, professional development and arts advocacy. Students will learn hardware and software as well as critically and creatively apply educational concepts and principles in technology integration for meaningful art learning. *Course available to visual arts education majors only.*
Prereq: CURR305, department permission and admission to the College of Education
- ART335 American Painting and Sculpture Prior to World War II** 3 hrs
A survey of American art, including European influences and the evolution of Native American characteristics.
Prereq: ART107 and ART108 or department permission
- ART340 History of Classical Art** 3 hrs
A study of the art and architecture of the classical civilization of Greece and Rome.
Prereq: ART107 or department permission
- ART341 History of Renaissance Art** 3 hrs
A history of Italian art from the Proto-Renaissance (about 1250 A.D.) through the period of mannerism (1600).
Prereq: ART107 or ART108
- ART346 Image Making I** 3 hrs
Image making as it applies to the materials and processes of communicating specific visual concepts. Introduces a wide variety of materials and imaging methods.
Prereq: ART205
- ART348 Intermediate Graphic Design Workshop** 3 hrs
Practicum dealing with various aspects of visual communication.
Prereq: ART302 and ART303
- ART355 Intermediate Textiles — Weaving** 3 hrs
An intermediate textiles class dealing with concepts and design as they relate to fiber structures created on the loom.
Prereq: ART235 and department permission; art majors only
- ART356 Intermediate Textiles — Surface Design** 3 hrs
An intermediate textiles class dealing with concepts and design as they relate to basic fabric processes of surface decoration and manipulation.
Prereq: ART235 and department permission; art majors only
- ART377/378/379 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission
- ART387 Cooperative Education in Art** 3 hrs
Employment in a graphic design firm, studio, or agency with an opportunity for practical design experience. Placement approval required by graphic design area.
Prereq: department permission
- ART405 Printmaking** 3 hrs
An advanced laboratory course designed for art majors specializing in graphics. Individual assignments in creative use of the more fundamental techniques learned in previous courses.
Prereq: ART306; art majors only
- ART406 Printmaking** 3 hrs
An advanced laboratory course for art majors taking their sequence in graphics. Projects could include lithography, etching and aquatint processes, plus individual assignments.
Prereq: ART405; art majors only
- ART407 Ceramics** 3 hrs
Intensive work for art majors specializing in ceramics with an emphasis on larger-scaled, increasingly complex techniques and forms. Historical and contemporary works examined.
Prereq: ART308; art majors only
- ART408 Ceramics** 3 hrs
Summation of the undergraduate ceramics program; emphasis on individual style, production techniques, studio management and exhibition programs.
Prereq: ART407; art majors only
- ART409 Advanced Photographic Imagery** 3 hrs
The contextual development of personal vision is emphasized through discussion of the student's work in relationship to established photographers' work.
Prereq: ART304 and ART323
- ART410 Metal Casting Techniques** 3 hrs
An advanced sculpture course covering all aspects of the lost-wax casting process. Includes information on other metal casting processes and on construction and operation of an inexpensive sculpture foundry.
Prereq: ART310 or department permission
- ART411 Sculpture** 3 hrs
Advanced sculpture problems, including steel and open-form construction; intensive study of contemporary methods and techniques of sculpture.
Prereq: ART311 or department permission; art majors only
- ART412 Sculpture** 3 hrs
Advanced sculpture problems; development of individual style in three-dimensional form.
Prereq: ART411; art majors only

- ART413 Painting** 3 hrs
Further development of painting skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.
Prereq: ART313; art majors only
- ART414 Watercolor II** 3 hrs
Further development of watercolor skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.
Prereq: ART314; art majors only
- ART416 Art Methods and Materials** 3 hrs
Designed to prepare students for their role in the classroom from the inception of an idea to the development of a unit of study. Planning, revising and presenting units which are comprehensive and facilitate learning in art. Not open to students on academic probation.
Prereq: ART317, junior standing; admission to the teacher education program
- ART419 Life Drawing** 3 hrs
The study of the human form as part of the development of a personal style in art.
Prereq: ART316; art majors only
- ART421 History of Asian Art** 3 hrs
A survey of Far Eastern art, with emphasis on the artistic and cultural traditions of South Asia, China and Japan. Works of art are examined for their cultural and historical significance.
Prereq: ART109 or department permission
- ART422 Art of East Asia** 3 hrs
A detailed examination of the visual arts of China, Japan and Korea from Neolithic times to the present, with emphasis on the cultural and artistic exchanges between these and surrounding cultures.
Prereq: ART109 or department permission
- ART423 Watercolor III** 3 hrs
Further development of individual style in watercolor.
Prereq: ART414; art majors only
- ART424 Watercolor IV** 3 hrs
Further development of individual style in watercolor.
Prereq: ART423; art majors only
- ART425 Arts of Africa** 3 hrs
Examines the visual arts of sub-Saharan Africa. Analyzes and investigates the content, materials, techniques and aesthetics of traditional African art within its cultural context. Includes the integration of function and ritual, as evidenced in the tribal objects and artifacts.
Prereq: junior or senior status or department permission
- ART426 Medieval Art History** 3 hrs
The development of medieval art from the Early Christian through Gothic periods.
Prereq: ART107 or department permission
- ART427 Baroque Art** 3 hrs
Principal developments in Italian and northern art of the 17th century. Emphasis on major themes and aesthetic problems.
Prereq: ART108 or department permission
- ART428 Seminar in 20th Century Art** 3 hrs
Readings, reports, and group discussions on 20th century art. Topics may vary.
Prereq: ART216 or art major
- ART429 History of American Architecture** 3 hrs
Exploration of styles and techniques in American architecture from the colonial period to the present, with special emphasis on the sources in foreign traditions. Major figures, including Thomas Jefferson, Louis Sullivan, Frank Lloyd Wright, Eero Saarinen and major stylistic trends, such as Greek Revival and the International Style, will be traced back through their origins and development.
Prereq: ART108 or department permission
- ART430 Mesoamerican Art** 3 hrs
A survey of the art of Mesoamerica, the civilization that existed in Mexico and Central America from about 1500 B.C.E. until the coming of Cortés in 1519. The major emphasis of the course will be on urban planning architecture and monumental sculpture. Significant attention will also be devoted to painting, ceramics, small-scale sculpture, textiles and jewelry.
Prereq: junior/senior standing and department permission
- ART432 Drawing III** 3 hrs
Drawing as expressive composition. Integration of the techniques of previous courses. Development of individual directions. Includes a variety of media and the study of master drawings.
Prereq: ART210; art majors only
- ART436/WGST436 Women in Art** 3 hrs
A survey of the contributions of female artists in the history of art. Discussions will include the history of women as patrons of the arts and the uses of the female image in art.
Prereq: ART108 or department permission
- ART439 Life Drawing** 3 hrs
The study of the human form as part of the development of a personal style of art.
Prereq: ART419; art majors only
- ART440 Art Since 1945** 3 hrs
A study of contemporary art from 1945 to the present with an intensive concentration on recent developments. A continuation of ART216.
Prereq: ART216
- ART442 Jewelry** 3 hrs
Advanced problems such as raising metal into hollow forms, cutting and polishing of gem stones, gem identification and advanced metal joining and forming processes.
Prereq: ART321; art majors only
- ART443 Jewelry** 3 hrs
Individual advanced problems in jewelry and metalworking.
Prereq: ART442; art majors only
- ART449 Photography Portfolio** 3 hrs
Development of a unified body of work representing the undergraduate photographic experience.
Prereq: ART409
- ART450 New Tools for Textiles** 3 hrs
An advanced textiles course investigating digital approaches to textile design as well as new developments in surface design and weaving.
Prereq: department permission and ART355/356
- ART455 Advanced Textiles** 3 hrs
Advanced problems in fiber structures and fabric processes. Emphasis on portfolio development.
Course available to art majors only.
Prereq: ART355/356 and department permission
- ART456 Color, Dye, and Fiber** 3 hrs
A study of systematic dye testing via lectures and lab work; emphasis on understanding color in the textile medium.
Prereq: ART235 or department permission
- ART460 Advanced Graphic Design** 3 hrs
Advanced work in visual communications; students are exposed to theories, philosophies, aesthetics, techniques and experiences used in complex visual communication environments. *Course may be repeated twice for credit.*
Prereq: ART302 or ART303
- ART462 Image Making II** 3 hrs
Image making as applied to advanced communication concepts. Students are exposed to theories, philosophies, aesthetics, techniques and experiences used in visual message building.
Prereq: ART346; ART302 or ART303
- ART464 Advanced Graphic Design Workshop** 3 hrs
Special problems with various aspects of visual communication of particular interest to advanced visual communication students.
Prereq: ART302 and ART303
- ART477/478/479 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission
- ART480 Painting** 3 hrs
Further development of individual painting style.
Prereq: ART413; art majors only
- ART481 Painting** 3 hrs
Further development of individual painting style.
Prereq: ART480; art majors only
- ART487 Cooperative Education in Art** 3 hrs
Continuation of ART387.
Prereq: ART387; approval by graphic design area
- ART497/498/499 Independent Study** 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not have regular course work.
Prereq: department permission

Astronomy Courses (ASTR)

ASTR177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ASTR203 Exploration of the Universe 3 hrs

An introductory astronomy course for students of any curriculum. The solar system, stars, galaxies, cosmology and the history of astronomy. Observations with telescopes are scheduled a few evenings each semester. ASTR204 may be taken concurrently with this course. Cannot be applied toward a physics major or minor.

ASTR204 Astronomical Investigations 1 hr

A laboratory course for the beginning astronomy student. The techniques and concepts of astronomy. Two hours of laboratory per week.

Prereq/Coreq: ASTR203 or ASTR205

ASTR205 Principles of Astronomy 4 hrs

An astronomy course for students desiring a comprehensive introduction to astronomy. Topics discussed in ASTR203 are covered in more detail, and additional topics are introduced. Especially recommended for science students. ASTR204 may be taken concurrently. *Not open to students with credit in ASTR203.*

ASTR277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ASTR297/298/299 Independent Study-Astronomy 1/2/3 hrs

An intensive study of a problem or group of problems under the direction of a department faculty member.

Prereq: approval of the faculty member and department permission

ASTR311 Astronomy Projects for Elementary Teachers 3 hrs

A hands-on course designed to provide elementary teachers with experience doing projects, in the elementary classroom, to teach astronomy. The course will integrate grade-level appropriate mathematics and writing to investigate and solve astronomical problems. Students also will study human endeavors in space exploration and their impact on societal and technological issues. Offered only to elementary education students.

Prereq: ASTR203 or ASTR205

ASTR315 Observational Astronomy 3 hrs

The practical aspects of astronomy emphasizing advanced amateur observational practices such as identification of astronomical objects using charts and references, telescopes, imaging and darkroom techniques, and computer applications.

Prereq: ASTR203 or ASTR205

ASTR370 Astrophysical Concepts 3 hrs

The emphasis is on the theoretical understanding and analytical treatment of topics in astrophysics. These topics include celestial mechanics, astronautics, planetary atmospheres, stellar structure, stellar evolution, galaxies and cosmology.

Prereq: PHY224; or PHY222 and MATH121

ASTR377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ASTR477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ASTR497/498/499 Independent Study-Astronomy 1/2/3 hrs

An intensive study of a problem or group of problems under the direction of a department faculty member.

Prereq: approval of the faculty member and department permission

Athletics Courses (ATHL)

ATHL177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ATHL261 Techniques of Officiating I 2 hrs

An elective course offered to men and women students interested in pursuing officiating as an avocation or as an integral part of a coaching background. The course covers football and men's and women's basketball. Registration with the Michigan High School Athletic Association will be available.

ATHL262 Techniques of Officiating II 2 hrs

An elective course offered to men and women students who are interested in pursuing officiating as an avocation. The course would also be valuable to those students who are interested in coaching, as the coach-official relationship is a valuable tool in one's coaching background. The sports covered are: track and field, baseball and softball. There will be a practical phase as well as a lecture phase of instruction.

ATHL263 Theory of Football 2 hrs

Lecture course covering the basic fundamentals and styles of offensive and defensive football.

ATHL264 Theory of Soccer 3 hrs

The purpose of this course is to explore the theory of soccer from its history to the energy demands

of the sport to its mental preparation as well as its technical structure. The course will rely on the latest research on the game and look for applied solutions to the problems that arise from the data. Technical and tactical theories will cover systems of play, passing and support to attacking and defending. Notational analysis will be used during laboratory sessions to further understand the sport.

ATHL265 Theory of Baseball 2 hrs

The fundamental skills and strategy of baseball for the prospective teacher and coach.

ATHL267 Theory of Basketball 2 hrs

Lecture course covering the basic fundamentals and styles of offensive and defensive basketball.

ATHL268 Theory of Coaching Swimming 2 hrs

ATHL268 is a lecture course for anyone who might coach swimming. The topics covered are stroke technique, applied physiology, strength and flexibility training, rules and how these components contribute to a daily, weekly and seasonal training plan.

ATHL269 Theory of Track and Field 2 hrs

The fundamental techniques for coaching and administering programs of track and field for the prospective teacher and coach.

ATHL277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ATHL317 Theory of Coaching Individual Sports for Women 2 hrs

Coordinates, correlates and supplements skills and information already conveyed in badminton, golf, tennis and archery activity classes. Place of individual sports in the school intramural and interschool programs, lesson plans, unit plans, techniques and strategies of advanced play, organization of a large class, evaluation of current literature pertinent to each activity.

ATHL318 Theory of Coaching and Teaching Women's Team Sports 2 hrs

Coordinates, correlates and supplements skills and coaching techniques introduced in activity courses. Field sports, volleyball and basketball.

ATHL377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ATHL477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ATHL497/498/499
Directed Study 1/2/3 hrs
Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above, and who have completed the appropriate background courses.
Prereq: department permission

Apparel, Textiles and Merchandising Courses (ATM)

ATM105 Integrated Arts 3 hrs
The application of design elements and principles to human and contemporary environmental needs. *Laboratory required.*

ATM118 Apparel Studio 3 hrs
Apparel construction using a commercial pattern. Emphasis is placed on fabric selection, fit and techniques.

ATM119 Early American Textiles 3 hrs
Survey of textiles used in early history of North America; laboratory experience allow students to develop skills in spinning wool and flax, traditional weaving and natural dyeing.

ATM135 Cultural Study of Dress 3 hrs
A study of the social, psychological and physical aspects of dress as related to culture, society and the individual.

ATM145 Introduction to Apparel and Textile Merchandising 3 hrs
Analysis of the apparel and textiles industry from the designing to distribution through major domestic and foreign markets. Emphasis is placed on fashion trends and cycles, history of merchandising and careers.

ATM177/178/179 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

ATM210 Display Techniques 3 hrs
Study and evaluation of visual presentations for store interiors and window displays for fashion retailing, educational and trade exhibits. Basic principles of design, as applied to merchandise displays are examined. Provides a hands-on opportunity to create window display designs with other students in campus buildings and the local community.
Prereq: ATM105

ATM235 Introductory Textiles 3 hrs
The analytical study of fibers, yarns, fabrics and finishes with emphasis on the performance of apparel and interiors fabrics. *Laboratory required.*

ATM255 Apparel Analysis 3 hrs
A study of the components of apparel at the various price and quality levels. Emphasis placed on standard terminology necessary to describe/evaluate apparel. *Laboratory required.*
Prereq: ATM235

ATM265 Merchandising of Interior Furnishings 3 hrs
Study of fashion marketing practices, buying techniques, and promotional activities as they relate to home furnishings industries. *Field trips required.*

ATM277/278/279 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

ATM302 Fashion Manufacturing Techniques 3 hrs
Experiences and analysis of apparel and textile product production. Includes selection of commercial equipment and textiles.
Prereq: ATM118

ATM345 Merchandise Planning and Control 3 hrs
Applications of merchandising mathematical concepts to buying functions and activities. Major focus on problem solving. *Field trips required.*
Prereq: ATM145

ATM355 Application of Merchandising Practices 3 hrs
Adaptation of apparel and textile merchandising concepts (ATM345) to computer systems. Development of processing tasks using specific merchandising information, utilizing the computer for simulation problem solving.
Prereq: COSC101 or IHHS224

ATM377/378/379 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

ATM380 Fashion of the Haute Couture 3 hrs
A detailed study of 20th-century American and European fashion and its relationship to identifiable costumes of the past with emphasis on haute couture. *Field trip required.*

ATM390 Visual Merchandising 3 hrs
Analysis of visual media and techniques used in presentation of merchandise in a variety of settings. Laboratory participation integrates theory and practice.
Prereq: ATM105

ATM392 Pattern Design 3 hrs
Principles of pattern making, and special problems in clothing construction and design.
Prereq: ATM118 or equivalent

ATM404 Advanced Textiles 3 hrs
Recent technological developments in textiles; textile testing techniques.
Prereq: ATM235 and one laboratory science course

ATM437 Professional Seminar 3 hrs
Exploration of professional aspects of merchandising. Emphasis on career preparation. Presentation of fashion related enterprises. Lectures by specialists. *Field trips required.*
Prereq: senior standing; ATM355 can be taken concurrently.

ATM439 Fashion Markets 3 hrs
Comprehensive overview of the world fashion markets with emphasis on their development, operation and contribution; includes a trip to one fashion-related market.
Prereq: department permission

ATM460 Tailoring 3 hrs
Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations.
Prereq: ATM118 or equivalent

ATM477/478/479 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

ATM487 Field Experience 3 hrs
Supervised field experiences working with family social agencies and/or businesses in the area of specialization emphasizing professional competencies and self-evaluation. Sections of course offered for specialization areas as needed. International students need a work permit before registration.
Prereq: department permission-senior standing

ATM497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Athletic Training Courses (ATTR)

ATTR201/SPMD201 Human Anatomy for Sports Medicine 3 hrs
Required lecture course for sports medicine majors that examines the structure of the human body. In addition to lecture format, computer graphic software will be utilized to enhance the learning process.
Prereq: BIOL105 or BIOL110, departmental permission and 2.5 GPA in sports medicine

ATTR202/SPMD202 Human Physiology for Sports Medicine 3 hrs
Required lecture course for sports medicine majors that examines the structure and function of the human body.
Prereq: BIOL105, departmental permission and 2.5 GPA in sports medicine; sophomore, junior or senior standing

ATTR219 Introduction to Athletic Training 3 hrs
An introduction designed to expose the student to the discipline of athletic health care. The student will study modern concepts of the prevention and care of athletic injury and common health care issues.
Prereq: SPMD119

ATTR225 Practicum I 2 hrs
A supervised educational experience in athletic training under the supervision of a certified athletic trainer.
Prereq: GPA 2.8, SPMD119 and department permission

ATTR290 Practicum II 2 hrs
A supervised athletic training practicum designed to incorporate theories and technical skills learned in the prerequisite courses. The objective is to obtain hands-on experiences in an intercollegiate setting.
Prereq: GPA 2.9, Athletic Training major and ATTR225; Coreq: ATTR296

ATTR295 Assessment of Lower Body Injuries 3 hrs
A study of the principles, procedures and techniques that are commonly utilized in the recognition and assessment process of athletic injury to the lower body. Emphasis is placed on taking a history, physical examination and the special tests of athletic injury. The course is lecture and lab. However, demonstrations and practical skill analysis supplement the course.
Prereq: ATTR225, ATTR201/SPMD201 and ATTR202/SPMD202; Coreq: ATTR326

ATTR296 Assessment of Upper Body Injuries 3 hrs
A study of principles, procedures and techniques that are commonly utilized in the recognition and assessment process of athletic injury to the upper body. Emphasis is placed on taking a history, physical examination and the special tests of athletic injury. The course is lecture and lab. However, demonstrations and practical skill analysis supplement the course.
Prereq: ATTR225, ATTR201/SPMD201 and ATTR202/SPMD202; Coreq: ATTR290

ATTR310 Emergency Care in Athletic Training 2 hrs
Students will learn how to handle emergency situations in the arena of athletic training. This will include skills in spine boarding, oxygen administration and more advanced emergency skills. Students will also learn how to perform the skills of CPR, rescue breathing and how to use and automatic defibrillator.
Prereq: HLED210 and Athletic Training major

ATTR321 Therapeutic Modalities for Athletic Trainers 2 hrs
A detailed study of theory, applications, physiological effects, and indications and contradictions of commonly used therapeutic modalities in the practice of athletic training.
Prereq: ATTR290, ATTR296, Athletic Training major, junior standing; Coreq: ATTR326

ATTR322 Therapeutic Exercise for Athletic Trainers 3 hrs
A study of the principles of applications, physiological effects, and indications and contraindications of commonly used therapeutic exercise methods in the practice of athletic training.
Prereq: ATTR219 and ATTR290

ATTR326 Practicum III 1 hr
A practical course in which students learn how to apply their athletic training knowledge in the athletic training room. Students learn and demonstrate skills in weight lifting, equipment requirements, risk management and a variety of related topics. Students work with different clinical instructors and athletic teams during the semester.
Prereq: ATTR225, ATTR290, Athletic Training major, junior or senior standing; Coreq: ATTR321 and ATTR295

ATTR327 Practicum IV 1 hr
An advanced supervised educational experience in athletic training under the supervising of an approved clinical instructor in the Athletic Training Education Program.
Prereq: ATTR326, Athletic Training major, department permission and junior standing; Coreq: ATTR322 and ATTR419

ATTR390 Senior Practicum 2 hrs
This course is organized and conducted to include a supervised clinical experience that allow the advanced student to assist in the skills, procedures and management of athletic injury and health care.
Prereq: candidacy and department permission; 3.0 GPA

ATTR419 Medical Aspects of Athletic Training 3 hrs
To expose students to various medical specialties that an athletic trainer is likely to utilize as medical support staff. Students will learn to perform pre-participation examinations, basic medical evaluations and learn decision-making skills, including proper medical referrals. This course is primarily lecture and guest speakers from allied health professions.
Prereq: ATTR295; candidacy

ATTR420 Administrative and Legal Aspects of Athletic Training 2 hrs
This course examines the administrative and legal issues surrounding the field of athletic training. Students will learn the basis of management, program management, human resource management, finance resource management, facility design and planning, information management, athletic injury insurance and legal considerations and how these apply to the profession to athletic training.
Prereq: ATTR326, ATTR327, senior standing and department permission; Coreq: ATTR390 and ATTR485

ATTR485 Seminar in Athletic Training 2 hrs
A course designed to prepare students for the internship experience and future employment in the athletic training profession. The three major components of the course include professional preparation, administrative principles and proce-

dures, and certification examination preparation. The course delivery includes computer simulations, role-playing, collaborative interaction and individual activities.
Prereq: candidacy, junior or senior standing

ATTR490 Internship — Athletic Training 8 hrs
The course is clinical experience to be conducted at an off-campus agency. The agency provides direct supervision at the site. The course is limited to senior students in their last semester. The student will be expected to increase his/her skills and knowledge in the key task areas of athletic training.
Prereq: candidacy and department permission

Aviation Technology Courses (AVT)

AVT100 Introduction to Air Transportation 3 hrs
This course is designed to provide a basic understanding of the operational categories within civil aviation and the functions of state and federal government in its control and regulation. The history, scope, and diverse nature of aviation will be discussed, together with some of the many occupational opportunities available.

AVT110 Aircraft Maintenance I 3 hrs
The functions and roles of maintenance procedures in an aviation maintenance organization structure. Lecture: three hours per week.

AVT120 Flight Operations I 3 hrs
The role of aviation in general aviation and the interface with regulatory agencies and parent organizations. Lecture: three hours per week.

AVT170 Aviation Ground Instruction 3 hrs
Basic ground instruction in aerodynamics, navigation, federal aviation regulations, meteorology, and flight procedures directed toward preparation for the private pilot written examination.

AVT177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AVT208 Aviation Human Factors 3 hrs
A course designed to provide the student with an introduction to human factors as applied in aviation. Topics include human error, fatigue, visual illusions, attitudes, training, displays and controls, biological factors, psychological factors and social factors.

AVT215 Aviation Weather 3 hrs
This course provides the student with an introduction to the properties and processes that create weather and addresses aviation specific weather topics to prepare the student for Federal Aviation Administration examinations. Topics include

types of weather that adversely affect flight operation and aviation weather services.

Prereq: course available to Aviation Flight Technology or Aviation Management majors/minors only.

AVT220 Flight Operations II 3 hrs

In-depth study of the functions and organization of operations and the relationship with the other departments within an aviation organization.

Prereq: AVT120

AVT222 Introduction to Automation in Aviation 3 hrs

This course examines the world of aircraft automation including a review of its history, capabilities of automated aircraft cockpit systems, aspects of automated aircraft design, the human role in automated flight, crew coordination errors and an examination of the automated systems used in Eastern Michigan University flight training. *Restricted to Aviation Flight Technology majors*

AVT251 Basic Flight I 2 hrs

The student will receive dual instruction in preflight procedures, ground reference maneuvers, takeoff and landings, power-off and power-on stalls, local flight operations and precision flight maneuvers. Remaining hours will be solo flight.

Prereq: AVT Student Pilot Certificate Class I Medical

AVT261 Basic Flight II 2 hrs

The student will receive dual instruction and solo practice in extended cross-country flight operations, flight proficiency maneuvers and all phases of flight specified by the Federal Aviation Administration. The student will be prepared to take the oral and flight examination for the Private Pilot Certificate.

Prereq: AVT251

AVT263 Aircraft Systems 3 hrs

This course is designed to provide an understanding of aircraft systems. The course will focus on electrical, hydraulic, pneumatic, power plant, fuel, oil, lubrication, cooling and aerodynamic control systems. The course will prepare the student pilot to succeed in future employer-required aircraft system classes. *Available to aviation flight technology and aviation management technology majors only.*

AVT271 Basic Flight III 2 hrs

The student will receive an introduction to commercial maneuvers and instrument flying techniques, including dual instruction and solo practice in areas of ground reference maneuvers, flight precision maneuvers, radio navigation and special cross-country flight operations.

Prereq: AVT261

AVT277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

AVT285/286/287 Preprofessional Internship 1/2/3 hrs

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.

Prereq: department permission

AVT303 Aviation Law and Insurance 3 hrs

Overview of legal considerations in general aviation, government agencies exercising control, regulations, laws, advisory information and insurance requirements and considerations.

AVT313 Aviation Industry Regulations 3 hrs

The major significance of aviation regulations and policies including the development and enforcement of federal aviation regulations will be presented. The major elements of managing an aviation operation within the guidelines of international and federal aviation industry regulations together with the influence of local and state requirements will be presented.

AVT315 Airport Management 3 hrs

The major elements in the process of planning and managing airports are presented including federal airport policy, the airport master-planning process, capacity analysis, site selection and funding. The historical development of and current practices in airport administration, operations management, maintenance and safety will be presented.

AVT320 Aviation Safety 3 hrs

In-depth study of aviation safety (flight and ground); accident prevention, accident investigation and personnel training.

Prereq: AVT170

AVT321 Cockpit and Crew Resource Management 3 hrs

The major elements in the process of planning and managing airports are presented including This course will present an introduction to the theories and concepts that make up the elements of cockpit and crew resource management (CRM). Topics including aviation human factors, high integrity flight teams, stress and performance, situational awareness and assessment, decision making, conflict resolution and problem solving will be explored.

AVT322 System Safety in Aviation 3 hrs

This course explores the Federal Aviation Administration's air carrier certification processes and the air transportation oversight system. Topics include the FAA systems approach to safety; aircraft configuration control, manual subsystems, flight operation subsystems, personnel training and qualifications, route structures, airmen duty time and technical administration of air carrier systems. *Restricted to Aviation Flight Technology majors and minors, and Aviation Management Technology majors and minors.*

Prereq: AVT313, sophomore standing

AVT341 Instrument Ground Instruction 2 hrs

Advanced ground instruction in flight instrument systems, attitude instrument flying, instrument

navigation, weather, Air Traffic control systems and Federal Aviation Regulations directed toward preparation for the FAA instrument written and practical examinations. *Restricted to aviation flight technology majors.*

Prereq: AVT170

AVT342 Commercial Ground Instruction 2 hrs

Advanced ground instruction will be presented to include aerodynamics, airports and airport operations, Federal Aviation Regulations, metrology, weather reports, aircraft performance, aircraft systems, weight and balance, and commercial pilot operations. *Restricted to aviation flight technology majors.*

AVT351 Advanced Flight I 2 hrs

The student will receive instruction in basic attitude flying, partial panel operations, VOR/NDB orientation and tracking, departures, arrivals, instrument approaches, holding patterns and IFR cross-country planning and operations. The course will prepare the student for the FAA instrument pilot written, oral and practical examinations. *Restricted to aviation flight technology majors.*

Prereq: AVT271

AVT361 Advanced Flight II 2 hrs

The student will receive dual instruction to introduce commercial flight operations. The student will also complete extensive cross-country flights towards the minimum qualifications for the FAA Commercial Pilot Certificate. *Restricted to aviation flight technology majors.*

Prereq: AVT351

AVT371 Advanced Flight III 2 hrs

The student will complete the dual instruction and solo practice in all phases of flight training specified by the Federal Aviation Administration for the insurance of the Commercial Pilot Certificate and the instrument rating. The student will complete the oral examinations and flight tests required for this certificate and rating. *Restricted to aviation flight technology majors.*

Prereq: AVT361

AVT377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

AVT382 Flight Instructor Ground Instruction 3 hrs

A course designed to prepare the student to meet Federal Aviation Administration requirements for the FAA Flight Instructor Certificate for an airplane category rating and single-engine land class rating. Theories of instruction, the learning process, instructor responsibilities and authority will be presented. *Restricted to aviation flight technology majors.*

AVT384 Multi-engine/Aircraft Systems Ground Instruction 3 hrs

A course designed to prepare the student for FAA multiengine certification. The course will present

the areas of aeronautical knowledge required for the multiengine pilot rating and the oral portion of the FAA multiengine practical test. *Restricted to aviation flight technology majors.*

AVT387 Co-operative Education in Aviation Technology 3 hrs

A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.
Prereq: department permission

AVT419 High Airspeed Aerodynamics/High Altitude Flight 3 hrs

A course designed to meet the Federal Aviation Administration ground training requirements for pilots who will conduct flight operations above 25,000 feet. The course will cover aerodynamic and physiological considerations for high altitude flight. *Restricted to aviation flight technology majors.*

AVT422 Senior Seminar in Aviation Management 3 hrs

Current issues in aviation management will be explored using group and individual projects and analysis of case studies. Research, analysis and application of skills and knowledge acquired in other course work will be stressed.
Prereq: department permission

AVT426 Advanced Flight IV: Multiengine 2 hrs

This course consists of the flight training requirements to meet the FAA airplane class rating for multiengine land. This course is conducted off campus by an approved flight training provider.
Coreq: AVT384

AVT427 Advanced Flight V: Certified Flight Instructor-Airplane 2 hrs

This course consists of the flight training requirements for the student to meet Federal Aviation Administration standards for the rating of Certified Flight Instructor-Airplane.

AVT428 Advanced Flight VI: Certified Flight Instructor-Instrument 2 hrs

This course consists of the flight training requirements for the student to meet Federal Aviation Administration standards for the rating of Certified Flight Instructor-Instrument.
Prereq: AVT427

AVT429 Advanced Flight VII Certified Flight Instructor-Multiengine 2 hrs

This course consists of the flight training requirements for the student to meet Federal Aviation Administration standards for the rating of Certified Flight Instructor-Multiengine.
Prereq: AVT428

AVT477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

AVT487 Co-operative Education in Interdisciplinary Technology 3 hrs

A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.
Prereq: department permission

AVT497/498/499 Independent Study 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Biology Courses (BIOL)

BIOL105 Introductory Biology for Nonmajors 4 hrs

A study of the basic concepts of modern biology common to all organisms with an emphasis on human systems and issues. Designed for students who are not majoring or minoring in biology. The course consists of two one-hour lectures, one one-hour recitation and three hours of laboratory each week. *Not open to students with credit in BIOL110 and/or BIOL120.*

BIOL107/ESSC107 Introduction to Environmental Science 3 hrs

An introduction to the basic biological, physical and chemical processes that control today's environmental conditions. The global ecosystem is presented as a structure that includes human society. The understanding of local and global environmental problems and discussion of potential solutions are emphasized.

BIOL110 Introductory Biology I 5 hrs

The basic concepts of biology upon which students can begin to develop a conceptual framework of the discipline will be developed in this course and reinforced in upper-level courses. Cell structure and function, molecular biology, Mendelian and population genetics, evolutionary theory and ecology will be covered in this first semester of a two-semester sequence. Inquiry-oriented laboratory exercises and inquiry-oriented methods will be emphasized in lecture and discussion sections. BIOL110 is required for students taking a major or minor in biology. Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week.
Prereq: BIOL105 or VTP1

BIOL120 Introductory Biology II 5 hrs

The basic concepts of biology upon which students can begin to develop a conceptual framework of the discipline will be developed in this course and reinforced in upper-level courses. Plant physiology, development and diversity; and animal physiology, development, diversity and behavior, will be covered in this second semester of a two-semester sequence. A continued emphasis on inquiry-oriented

laboratory exercises and inquiry-oriented methods will be applied to lecture and discussion sections. BIOL120 is required for students taking a major or minor in biology. Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week.
Prereq: C- or better in BIOL110

BIOL177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

BIOL201 Human Genetics 3 hrs

A lecture course emphasizing fundamental concepts of human genetics specifically designed to provide the nonbiology major a framework to understand and assess recent advances and ethical issues concerning medical genetics, molecular diagnostics and genetic engineering.
Prereq: BIOL105 or BIOL110

BIOL204 The Biology of Cancer 2 hrs

Introduces the types, characteristics, putative causes and current treatments of cancer.
Prereq: BIOL105 or BIOL110

BIOL205 Field Biology 4 hrs

A lecture, laboratory and field course in the behavior, ecology and broad classification of plants and animals, giving training in recognition of common plants and animals of Michigan. Gives background material to the nonspecialist interested in outdoor life, and to the elementary school teacher.

BIOL223 Human Embryonic Development 3 hrs

A study of the embryonic development of humans from fertilization to birth, with emphasis on the development of the major organ systems and the birth defects that occur when development occurs abnormally.
Prereq: BIOL105, BIOL110 or ZOOL201

BIOL224 Global Ecology and the Environment 4 hrs

This course is an introduction to basic ecological principles and their application to current global environmental issues and conservation practices. The effect of the human population explosion on the conservation and use of resources and biodiversity is emphasized. *Does not count toward the biology major or minor.*
Prereq: BIOL107/ESSC107, BIOL105, or BIOL110

BIOL225 Aquatic Biology 3 hrs

An introductory course in the ecology of freshwater aquatic ecosystems (lakes, stream, rivers and wetlands). Emphasis will be placed on the physical, chemical and biologic characteristics that define differing aquatic habitats and the functional role organisms play in aquatic ecosystems. Human impacts on freshwater ecosystems will also be considered.
Prereq: BIOL107/ESSC107 or BIOL105 or BIOL110

BIOL228 Germs, Plagues and Human Infections 3 hrs
This course provides the nonscientist with a basic understanding of the biology of human infectious diseases. The course uses lecture, discussion and small group activities to examine the biology of microbes and of human defenses, the evolution of infectious disease, the history of epidemics and current issues in infectious diseases.
Prereq: BIOL105 or BIOL110 or ZOO201

BIOL239 Biology of Aging 2 hrs
The study of the aging process at the molecular, cellular, tissue and systems level of organization. Theories of aging will be considered.
Prereq: BIOL105

BIOL247 Animal Behavior 3 hrs
An introduction to animal behavior and its scientific investigation. Animals use behavior in meeting the challenges of their lives. Biologists study behavior using four sorts of questions. Lecture illustrates the variety of behaviors and investigation. During recitation, students carry out guided inquiries into the behaviors of readily found animals.
Prereq: BIOL105 or BIOL110

BIOL277/278/279 Special Topics 1/2/3 hrs
An examination of topics in biology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

BIOL301 Genetics 3 hrs
A lecture course emphasizing the basic principles of inheritance with their application to plants and animals.
Prereq: C- or better in BIOL120

BIOL303 Life Science for Elementary Teachers 3 hrs
Major biological concepts and best practices for teaching science, including inquiry and the "discovery" approach, will be covered. Class configuration — methods or fieldwork and web-based instruction involving inquiry, resource evaluation and recitation. Concluding course in the elementary science sequence.
Prereq: CURR304 and admission to the teacher education program.

BIOL305 Cell and Molecular Biology 3 hrs
A lecture course that examines the basic unit of structure and function in life, the cell. The course uses concepts of molecular biology to survey aspects of cellular function, such as metabolism, intercellular communication and cell division.
Prereq: CHEM121/122, CHEM123/124, and C- or better in BIOL301,

BIOL306 Cell and Molecular Biology and Genetics Laboratory 2 hrs
This laboratory course provides students with an opportunity to use molecular and cellular techniques to probe aspects of gene inheritance and expression. Students will develop critical reasoning and laboratory skills in preparation for advanced laboratory studies, independent research projects

at the sub-organismal level, as well as for cooperative learning internships.
Prereq: C- or better in BIOL301; Prereq/Coreq: BIOL305

BIOL310 Ecology 3 hrs
A lecture 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 ecosystems, community and population levels.
Prereq: C- or better in BIOL120

BIOL311 Laboratory in Ecology 2 hrs
A laboratory and field course with two main objectives: (1) to introduce students to the methods and concepts involved in the study of the distribution and abundance of organisms, and (2) to familiarize students with the structure and function of aquatic and terrestrial communities.
Prereq/Coreq: BIOL310

BIOL315 Evolution 3 hrs
This lecture and discussion class examines basic concepts of evolutionary biology emphasizing evolutionary theory, evolutionary processes and contemporary topics in evolutionary biology. An integrative approach at the cell and molecular, organismal, population and higher taxonomic levels will be incorporated to understand the role of evolution as the organizing principle of all levels of biology and life.
Prereq/Coreq: BIOL301

BIOL366 Marine Resource Conservation 4 hrs
This lecture and laboratory course analyzes the relationship between marine ecology and resource management in an interdisciplinary examination of coastal conservation issues of the Caribbean. Course meets daily (spring/summer), for one hour of lecture, one hour of discussion and three hours of field laboratory at a Caribbean field station. *Not open to students that have already taken BIOL369.*
Prereq: BIOL120

BIOL367 Marine Research Methodology 4 hrs
This is an applied course in the methodology of marine field studies. Students will design and conduct research projects under the supervision of faculty. Research topics will revolve around environmental assessments and environmental impact assessments of coastal waters. Conclusions from projects will be prepared for publication and/or a research report.
Prereq: BIOL120

BIOL368 Natural History and Classification of Marine Organisms 5 hrs
A field laboratory and lecture covering functional morphology and classification of tropical marine organisms. Emphasis is placed on marine vascular plants, benthic and pelagic inshore macro-fauna and flora. Course meets for 3 hours of lecture and 6 hours of field labs each week at a Caribbean field station.
Prereq: BIOL120 and sophomore standing

BIOL369 Principles of Tropical Marine Ecology 4 hrs
A lecture course and field laboratory on the ecology of tropical marine ecosystems. Biological oceanography and systems ecology form the basis for examinations of community structure, productivity and disturbance. Course meets for three hours of lecture and six hours of field work each week at a Caribbean field station.
Prereq: BIOL120

BIOL377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

BIOL387 Cooperative Education in Biology 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 biology or technology. The program consists of two work experiences (BIOL387/487) alternating with full-time attendance at the University. *Admittance to program by application only. Graded on a credit/no-credit basis.*
Prereq: junior standing

BIOL401 Genome Analysis 4 hrs
An introductory course to the field of genomics. This involves the study of genome data and exploration of the organization, dynamics and evolution of genes and genomes. The laboratory component involves analyses of genes, genomic variation/DNA fingerprinting, DNA sequences and molecular evolution.
Prereq: BIOL305, BIOL306 or BIOL551

BIOL403 Methods for Teaching Secondary Biology 3 hrs
A lecture-laboratory course providing knowledge, training and practice in the presentation of biological principles, analysis of texts, selection of course content, effective classroom methods and preparation of classroom materials used in the teaching of biology. *Does not count toward major or minor.*
Prereq: BIOL301, CURR305, EDPS340; admission to the teacher education program

BIOL406 The Nature of Science 1 hr
This course examines the nature of scientific evidence, inquiry, hypothesis, models and laws. The development of science is put in the context of the structure and history of the scientific community. Interactions among scientists and between scientists and the rest of society are studied from an ethical perspective.
Prereq: C- or better in BIOL301; Department permission required for science majors or minors from other programs.

BIOL410 Limnology 3 hrs
A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.
Prereq: BIOL310 and BIOL311

BIOL412 Biogeography 3 hrs
A lecture course involving the descriptive and historical aspects of plant and animal distribution

and the basic principles governing their natural distribution in both space and time.

Prereq: BIOL120 and ESSC108, ESSC202, ESSC110 or ESSC111

BIOL435 Wetland Ecosystems 3 hrs

Advanced field ecology course in the theory and methods of study of wetland ecosystems.

Prereq: BIOL310 and BIOL311

BIOL436 Terrestrial Ecosystems 3 hrs

Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems.

Prereq: BIOL310 and BIOL311

BIOL477/478/479 Special Topics 1/2/3 hrs

An examination of advanced topics in biology not covered in other department offerings.

Prereq: department permission

BIOL487 Cooperative Education in Biology 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 biology or technology. The program consists of two work experiences (BIOL387/487) alternating with full-time attendance at the University. *Admittance to program by application only. Graded on a credit/no-credit basis.*

Prereq: BIOL387

BIOL497/498/499 Special Problems in Biology 1/2/3 hrs

Individual work in some area of biology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.

Prereq: department permission

Business Management Marketing and Technology Courses (BMMT)

BMMT100 Contemporary Business 3 hrs

The American business enterprise and international business. Contemporary problems and future challenges. Career decision-making in terms of business careers. *Open to all students except upper-division business majors.*

BMMT123 Word Processing/Keyboarding Applications 2 hrs

Continued keyboarding and word processing skill development. Application of skill to business documents, manuscripts and reports. Emphasis on improved editing, proofreading and referencing skills.

BMMT177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

BMMT200 Principles of Marketing and Office Education 3 hrs

An introduction to marketing and office education. The scope and importance of vocational education with emphasis on marketing and office education. Pre-student teaching experience will be initiated in conjunction with this course.

BMMT201 Microcomputers for Business Applications 3 hrs

Computer hardware and software for office use including both mainframe and microcomputer systems. "Hands-on" experience limited to microcomputers. Basic skills in using prepared software and developing programs for office applications using Microsoft BASIC. Requires no prior knowledge of computers or programming.

BMMT205/WGST205 Women in Business 3 hrs

Social and business conditions that support the entry of women to executive positions in business; career opportunities at the professional and executive levels of business.

BMMT220 Word/Information Processing Operations 3 hrs

Continued development of editing, proofreading and referencing techniques. Emphasis on advanced functions of word processing software, typography, graphics and other desktop publishing concepts. Advanced document applications including merge and list processing, math operations and importing from other software programs. *A minimum grade of C is required if taken towards the Legal Assistant (Paralegal) Program.*

Prereq: BMMT123 and BMMT201

BMMT250 Personal Finance 3 hrs

The management of financial resources to satisfy personal or family goals. Budgeting, consumer credit, investments, insurance, real estate, wills and trusts, and income taxes. Students learn to make decisions within the context of a realistic consumer-oriented environment. *Open to all students.*

BMMT277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

BMMT285/286/287 Preprofessional Internship 1/2/3 hrs

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.

Prereq: department permission

BMMT310 Word/Information Processing Administration 3 hrs

Techniques to utilize staff and equipment most effectively, record keeping, work flow, evaluating personnel, establishing policies and standards of operation as applied to word processing.

Prereq: NITA210 and BMMT220

BMMT321 Digital Tools Communication 3 hrs

Learning and teaching digital tools and systems provide an opportunity to learn new technology input skills in a hands-on setting and methods of teaching are deeply integrated. A portion of the course is to help develop and revise curriculum for classes taught at the high school level in which digitools is incorporated. The class will delve into the national and state standards pertinent to the BMMT program

BMMT363 Curriculum for Business Services and Technology Education 3 hrs

Overviews content bases and other factors that affect business service and technology. Includes the relationship in philosophies of education and styles of teaching, classroom management in a variety of settings, including utilization of non-classroom curriculum delivery systems and the implementation of curriculum evaluation and revision procedures.

Prereq: BMMT200; admission to the teacher education program

BMMT364 Methods of Teaching General Business Subjects 2 hrs

Methods in teaching general business, law and keyboarding with application to classroom situations. Objectives, lesson planning, techniques of teaching, and sources of materials.

Prereq: RDNG311 and EDPS322; 2.5 GPA in all business education subjects taken at EMU, no academic probation; admission to the teacher education program

BMMT365 Methods of Teaching Office Education 2 hrs

Methods of teaching shorthand, office block, bookkeeping, accounting, keyboarding, word processing and cooperative education classes. Objectives, lesson planning, techniques of teaching and sources of materials.

Prereq: EDPS322 and BMMT364; 2.5 GPA in all business education subjects taken at EMU, no academic probation

BMMT366 Methods of Teaching Marketing Education 2 hrs

Techniques and practices utilized in teaching marketing and cooperative education in secondary schools, community colleges and adult evening schools.

Prereq: EDPS322; 2.5 GPA in all business education subjects taken at EMU, no academic probation; admission to the teacher education program

BMMT367 Curriculum in Marketing Education 2 hrs

Overviews content bases and other factors affecting marketing education curriculum. Includes development of comprehensive curriculum plans for a variety of marketing education settings, utilization of nonclassroom curriculum delivery systems, and implementation of curriculum evaluation and revision procedures. Examines current trends in marketing education curriculum.

BMMT368 Management of Marketing Education Programs 2 hrs
Examines the marketing educator roles of DECA adviser, public relations specialist, career counselor, program administrator/supervisor and professional educator.

BMMT377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

BMMT387 Co-operative Education 3 hrs
Graduate students who are completing research (Master's or Specialist), capstone or internship experiences and have completed all other graduate program course requirements may remain affiliated with the University through Continuous Enrollment. Enrollment enables access to library, health services and other resources. Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis.
Prereq: department permission

BMMT395 Administering Workplace Systems and Technology 3 hrs
Assessment, implementations and utilization of workplace systems and technology from the point of view of the administrative manager. Examination of workplace organization, physical facilities and productivity.
Prereq: BMMT201

BMMT396 Information and Media Administration 3 hrs
Management methodology in records, control, costs, protection, retention, retrieval and disposal. Records administration as a management tool.
Prereq: BMMT201

BMMT461 Projects and Simulations in Marketing Education 2 hrs
Projects and simulations methods in marketing education are explored with a major focus on the organization and coordination of the school store. Implementation steps for the entrepreneurship simulation are developed. Small scale simulations and projects are also studied as well as procedures for developing simulations and projects.

BMMT477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

BMMT487 Co-operative Education 3 hrs
Graduate students who are completing research (Master's or Specialist), capstone or internship experiences and have completed all other graduate program course requirements may remain affiliated with the University through Continuous Enrollment. Enrollment enables access to library, health services and other resources. Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis.
Prereq: department permission

BMMT496 Records Administration Using Database 3 hrs
Database as a tool of automated search and retrieval. Identifying information needs of users; design and development of records classification structures suitable for automated records systems; searching techniques; generation of reports such as records user listings, master record listings and records retention schedules. Extensive applications using database software.
Prereq: BMMT396

BMMT497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Botany Courses (BOTN)

BOTN130 Biology of Plants 4 hrs
An introduction to the plant kingdom for non-biology majors. The biology of plants is explored from the cellular through whole-organism levels of organization, focusing on the roles of diverse plant groups in our environment. Three one-hour lectures plus three hours of laboratory experience.
Does not count toward the biology major or minor.

BOTN177/178/179 Special Topics 1/2/3 hrs
An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

BOTN215 Plants and People 3 hrs
A study of plants useful to man, especially those that yield food, fibers, wood, rubber, drugs and other products of value. It is a lecture-demonstration course supplemented by reading. Open to all students without prerequisite, though previous training in biology, botany or agriculture is desirable.

BOTN277/278/279 Special Topics 1/2/3 hrs
An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

BOTN354 Trees and Shrubs 3 hrs
A taxonomic field course on identification of native trees and shrubs in winter and summer conditions.
Prereq: BIOL205 or BIOL120 or BOTN130

BOTN377/378/379 Special Topics 1/2/3 hrs
An examination of topics in botany not covered in other department offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

BOTN387 Cooperative Education in Botany 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 botany or technology. The program consists of two work experiences (BOTN387/487) alternating with full-time attendance at the University.
Admittance to program by application only. Graded on a credit/no-credit basis.
Prereq: junior standing

BOTN404 Mycology 3 hrs
A lecture-laboratory course on the study of molds, rusts, mildews, edible and poisonous mushrooms, and other fungi. Their life history, economic importance, method of identification and preservation are considered.
Prereq: BIOL120 or BOTN130

BOTN412 Plant Anatomy 3 hrs
A basic lecture-laboratory course in plant histology emphasizing recognition of primary and secondary tissues as variously combined in root, stem, leaf and flower of a wide variety of representative seed plants.
Prereq: BIOL120 or BOTN130

BOTN442 Plant Physiology 3 hrs
A detailed study of major plant functions with emphasis on growth and development presented by lecture, demonstration and experimentation in laboratory and greenhouse.
Prereq: BIOL305 and BIOL306; and CHEM270 or CHEM372

BOTN445 Plant Biotechnology 3 hrs
A hands-on exploration of the techniques used in plant biotechnology and their application to agricultural biotechnology and basic science. State-of-the-art molecular biology techniques are applied to genetic engineering of plants and plant products. Lecture and discussion provide the theoretical basis for the techniques used.
Prereq: BIOL305 and BIOL306

BOTN450 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.
Prereq: BIOL120 or BOTN130

BOTN451 Freshwater Algae 3 hrs
A survey of the freshwater algal divisions; their morphology, taxonomy, ecology and economic importance. Lectures emphasize an evolutionary approach. Laboratory work stresses the identification of representative algal taxa. Class field collections are made.
Prereq: BIOL120 or BOTN130

BOTN455 Systematic Botany 3 hrs
Covers the essentials of the collection, identification and classification of flowering plants. The student will become familiar with the major plant groups, both from lecture and herbarium study and from field experience in varied habitats.
Prereq: BIOL120 or BOTN130

BOTN477/478/479 Special Topics 1/2/3 hrs
An examination of topics in botany not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

BOTN487 Cooperative Education in Botany 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 botany or technology. The program consists of two work experiences (BOTN387/487) alternating with full-time attendance at the University. *Admittance to program by application only. Graded on a credit/no-credit basis.*
Prereq: BOTN387

BOTN497/498/499 Special Problems in Botany 1/2/3 hrs
Individual work in some area of botany under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.
Prereq: department permission

CAD Courses (CADM)

CADM101 Introduction to Industrial Drawing 3 hrs
An introductory mechanical drawing course emphasizing lettering, measuring, geometric construction, sketching, equipment usage, pictorials, orthographic projection and dimensioning. This course is intended for students without previous drafting experience. Lecture and laboratory course. *This course does not count toward a CAD/CAM major.*

CADM105 Computer Applications for Industry 3 hrs
Provides the theory, general applications, and specific applications of microcomputers. Students are exposed to software packages commonly used for general and specific applications in industry. Lecture and laboratory course.

CADM106 Industrial Computer Applications for Manufacturing 3 hrs
This course presents advanced DOS commands and concepts appropriate for microcomputers configured for CAD/CAM and other similar industrial applications. Lecture and laboratory course.
Prereq: a course in computer literacy

CADM120 Computer-Aided Print Reading 3 hrs
A manufacturing print reading course which includes an introduction to computer-aided drawing. This course is intended for manufacturing cost analysis majors with no previous engineering drawing experience.
Prereq: CADM105 or IS215

CADM122 Engineering Graphics I 3 hrs
A mechanical drawing course emphasizing orthographic projection, pictorial representation, dimensioning, sectional and auxiliary views, computer-aided drafting, mechanical fasteners and working drawings. Lecture and laboratory course.
Prereq: CADM101 or one year of high school drafting

CADM177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CADM223 Engineering Graphics II 3 hrs
Engineering Graphics II is an advanced drawing course designed as a continuation of Engineering Graphics I. Units of instruction include fit classifications, geometric dimensioning and tolerancing, gears, cams, revolution, intersection and development. Lecture and laboratory course.
Prereq: MATH107 and CADM122

CADM231 Computer Graphic Programming for Industry 3 hrs
A series of computer graphics programs illustrate graphics algorithms and terminology. Students write similar computer programs using graphics functions. Topics include computer graphics, multi-view drawings, multiaxis rotations, CAD databases, animation and interactive programming. Lecture and laboratory course.
Prereq: MATH107 and a course in C programming

CADM277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CADM324 3-D Solid Modeling 3 hrs
Examination and production of engineering designs/drawings using 3-D solid and wireframe techniques. Software generation of drawings, models and assemblies, including exploration of file formats and transfers. Class files utilized to construct physical prototypes using rapid prototyping equipment as an output device. Models can be used for testing and visualization.
Prereq: CADM223 and MFG124

CADM325 Applied Mechanics, Kinematics, and Design 3 hrs
The study of mechanical devices, the forces to which they are subjected and systems design considerations. Topics include statistics, dynamics, and modification of mechanisms. Lecture and laboratory course.
Prereq: PHY221

CADM331 Product Design Data Management I 3 hrs
Students develop an interactive CAD software package. Principles of software design, the use of graphics hardware and the generating, modifying,

and transforming of CAD entities and databases are included. Lecture and laboratory course.
Prereq: CADM231

CADM334 3-D Computer-Aided Design Modeling 3 hrs
This course provides the advanced CAD user with an in-depth understanding and skill of constructing and integrating 3-D solid modeling and surfacing techniques into part modeling, assembly and animation using commercial CAD software.
Prereq: CADM122 and CADM223

CADM360 CIM Operations 3 hrs
Concepts, components, and application of computer-based industrial automation. The integration and implications of CAD, CAM and business functions into CIM are included.
Prereq: MFG203

CADM377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CADM387 Cooperative Education in CAD/CAM Technology 3 hrs
Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-credit basis. Credit applicable to the major in industrial technology or industrial teacher education only.*
Prereq: department permission

CADM417 Industrial Robotics 3 hrs
The nature and use of industrial robotics: capabilities, equipment and associated hardware, justification, preparation and installation, launching and monitoring. Lecture and laboratory course.
Prereq: CADM106, MFG203, ELEC218 and MFG318

CADM432 3-D Feature-Based Modeling and Surfacing Techniques 3 hrs
Students learn and practice 3-D feature-based part modeling and surfacing techniques on a high-performance 3-D CAD system. Advanced modeling techniques and assemblies will be presented. Lecture and laboratory course.
Prereq: CADM324

CADM433 Advanced Computer-Aided Design 3 hrs
Advanced computer-aided design course uses modeling software to develop 3-D models. Solid models are constructed using advanced design modeling strategies. Methods to be explored include geometric primitives, sketching, integrated free form and surface bodies using b-spline control. Emphasis on advanced complex assemblies and surface models.
Prereq: CADM324

CADM435 Finite Element Analysis 3 hrs
Finite element analysis (FEA) is a powerful tool used by industries to solve many engineering problems. Basic concepts of this technique will be introduced and the students will have hands-on experience to analyze heat transfer, beam deflection and stress and strain problems by using several different software packages. Lecture and laboratory course.
Prereq: MET221 and CADM325, PHY229 or instructor permission

CADM461 CAD/CAM NC Programming 3 hrs
Study of conversion of part descriptions to numerical control programs for mill, lathe, and three-axis machining center. Advanced APT and CAD/CAM NC programming for producing the instruction codes necessary to manufacture parts with NC machine tools are emphasized. Verification of the computer assisted NC programs are accomplished by laboratory work.
Prereq: MFG361

CADM477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CADM485 Flexible Manufacturing Systems 3 hrs
Design and implementation of a flexible manufacturing cell. Machining materials, material handling and storage, inspection and inventory are emphasized. Part programming using numerical control, robotics/programmable automation programming, development of a manufacturing database and hierarchical computer control. Lecture and laboratory course.
Prereq: MFG316, CADM324, MFG361, QUAL320 and MFG425

CADM487 Cooperative Education in CAD/CAM Technology 3 hrs
The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. *Graded on a credit/no-credit basis.*
Prereq: CADM387 and department permission

CADM491 Mechanical Design Capstone 3 hrs
A synthesis of all previous academic course work for the development of a fully defined new product in a team work environment, using CAD/CAE system and integrated design methodology for the product design process. Technical reports and presentations are required.
Prereq: CADM325/433

CADM494/495/496 Industry-Based Special Topics 1/2/3 hrs
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

CADM497/498/499 Independent Study 1/2/3 hrs
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.
Prereq: department permission

College of Arts and Sciences Courses (CASI)

CASI150 Life's a Risk 3 hrs
This interdisciplinary course is an introduction to risk assessment in modern society. Students will gain a breadth of knowledge in many science disciplines while studying the relative risks associated with everyday living and ways to minimize exposure to those risks. No prerequisites are required for this course.

CASI177/178/179 Special Topics 1/2/3 hrs
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CASI206 Culture and the Holocaust 3 hrs
Culture and the Holocaust is an interdisciplinary examination of the Holocaust, the systematic murder of more than six million Jews, Slavs, Gypsies, homosexuals and others judged politically and racially undesirable by the Nazi regime of Adolf Hitler.

CASI240 Reel Women/Real Women 3 hrs
This course examines issues concerning women and film from the interdisciplinary perspectives of communications, women's studies and philosophy. Different techniques for critical analysis will be used to study how film represents gender, race, class and culture.

CASI277/278/279/280 Special Topics 1/2/3/4 hrs
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CASI377/378/379 Special Topics 1/2/3 hrs
Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CASI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CASI497/498/499 Independent Study 1/2/3 hrs
Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student.
Prereq: department permission

Computer Engineering Technology Courses (CET)

CET251 Engineering Software and Applications 3 hrs
This course introduces a variety of software tools and techniques used by engineers. It is intended for anyone involved in engineering design, analysis and software development. Engineering software developments related to real life applications are included.
Prereq: ET100, COSC111 and MATH120

CET353 Web Development for Engineering Applications 3 hrs
The application of Web technology to engineering disciplines. Emphasis is given to designing, analyzing and developing Web applications for various engineering disciplines and enterprises. Projects integrate various Web-based engineering software to be simultaneously used and managed for concurrent engineering and business activities in virtual environment.
Prereq: CET251, COSC334 and IS380

CET387 Cooperative Education in Computer Engineering Technology 3 hrs
An industrial experience in business and industrial where primary work emphasis is related to computer engineering technology. During this period employee benefits may be received.
Prereq: department permission

CET426 Engineering Product Information 3 hrs
An overview of the information related to product design and manufacturing production. Emphasis will be given to utilize product information in various aspects of engineering design, analysis, manufacturing and concurrent engineering.
Prereq: ELEC218

CET427 Programmable Logic Controller 3 hrs
The application of electricity, electronics, programmable logic controller, data acquisition, and analysis techniques to the open-loop and closed-loop control of machines and processes. Emphasis will be given to utilization of computers and programmable logic controllers for industrial control purposes. Lecture and laboratory course.
Prereq: ELEC218

CET451 Engineering Database Development 3 hrs
This course covers the essentials of developing and implementing database system for engineering appli-

cations. The emphasis is given to the development of database applications for integrating product design, production analysis, manufacturing, process control, assembly, inventory control and other engineering functions. Practical examples of C3P that integrate CAD systems, CAM systems, FEA systems, SQC, etc. are presented. Several popular products data management systems such as Parametric Technology's Windchill, EDS's PLM (Product Lifecycle Management) and IBM's PLM will be introduced.
Prereq: IS380

CET453 Engineering Programming 3 hrs
Cover Java programming essentials with emphasis in the object-oriented programs for engineering applications. Emphasis will be given to the development of interface programs that allow popular engineering application software to be used in specific applications and the development of Web-based programs for engineering applications.
Prereq: CET353 and CET451

CET491 Senior Design Capstone 3 hrs
A synthesis of all previous academic course work for the capstone activity for the computer engineering technology student; includes a proposal phase, development phase and final project. This course focuses on the effective teamwork strategies and the applications of computer software and hardware in engineering activities. Technical reports and presentations are required.
Prereq: ELEC218, ENGL324, CET353 and senior standing

Chemistry Courses (CHEM)

CHEM101 Chemistry for Elementary Teachers 3 hrs
Designed for students who plan to teach in elementary school. Lectures deal with some basic principles of chemistry while the laboratory work emphasizes the discovery approach as it may be used in an elementary classroom. Simple equipment and easily obtained chemicals are used in the experiments. Does not count toward major or minor. Lecture: two hours per week. Laboratory: two hours per week.

CHEM115 Chemistry and Society 3 hrs
Examines the relevance of chemistry to the problem of how humans relate to the environment. It is designed for humanities and other nonscience majors. No previous mathematics or chemistry is required. CHEM116 may be taken concurrently to satisfy the laboratory science requirement for general studies. Does not count toward major or minor. Lecture: three hours per week.

CHEM116 Chemistry and Society Laboratory 1 hr
Laboratory experiments based on environmental problems such as water and air pollution, drugs and pesticides. The laboratory may be taken concurrently with CHEM115 to satisfy the Area II physical science requirement. Does not count toward major or minor. Laboratory: two hours per week.
Prereq/Coreq: CHEM115

CHEM117 Fundamentals of Chemistry-Lecture 3 hrs
A rapidly moving introductory study of basic principles in general chemistry. Includes elements, compounds, periodic properties, atomic structure, gas laws and stoichiometry. Does not count toward major or minor. Can be used with CHEM118 to satisfy the chemistry prerequisite for CHEM121. Will satisfy Area II physical science requirement when taken concurrently with CHEM118. Lecture: three hours per week.
Prereq: MATH104, MATH105, MATH107, MATH112, MATH118, MATH119, MATH120 or Level 3 math placement;
Coreq: CHEM118

CHEM118 Fundamentals of Chemistry Laboratory 1 hr
Designed to accompany CHEM117 lecture. Will provide an introduction to scientific discovery through experimentation and observation. Experiments are drawn from topics presented in the chemistry lectures in CHEM117. Does not count toward major or minor. Laboratory: two hours per week.
Coreq: CHEM117

CHEM120 Fundamentals of Organic and Biochemistry 4 hrs
A survey of organic chemistry and biochemistry; completes the study of chemistry begun in CHEM117/118 and is a terminal course. Does not count toward major or minor. Lecture: three hours per week. Laboratory: two hours per week.
Prereq: high school chemistry or CHEM117

CHEM121 General Chemistry I 3 hrs
The first semester of a two-semester sequence covering the principles of chemistry for science majors and others with an interest and background in science. Lecture: three hours per week.
Prereq: MATH104 or Level 3 math placement with concurrent registration in MATH104; High school chemistry;
Coreq: CHEM122

CHEM122 General Chemistry I Laboratory 1 hr
The laboratory class to accompany CHEM121. Students learn basic techniques employed in a chemistry laboratory, including use of analytical balances, quantitative glassware, spectrophotometry and computers for data acquisition and analysis. Laboratory: three hours per week.
Coreq: CHEM121

CHEM123 General Chemistry II 3 hrs
A continuation of the two-semester sequence covering the general principles of chemistry for science majors and others with an interest and background in science. Lecture: three hours per week. Restriction: C- or better in CHEM121.
Prereq: CHEM121 and CHEM122; and MATH105, MATH112, MATH119, MATH120 or Level 5 math placement
Coreq: CHEM124

CHEM124 General Chemistry II Laboratory 1 hr
The techniques learned in CHEM122 are reemphasized and supplemented. Laboratory: three hours per week. Restrictions: C- or better in CHEM122.
Coreq: CHEM123

CHEM125 Honors General Chemistry II (Lecture) 3 hrs
A continuation of CHEM121 General Chemistry for students of superior ability. The sequence of CHEM121, 122, 125 and 126 can constitute the customary year of general chemistry. Lecture: three hours per week.
Prereq: CHEM121 and CHEM122; and MATH105, MATH112, MATH119, MATH120 or Level 5 math placement; and consent of Honors Committee;
Coreq: CHEM126

CHEM126 Honors General Chemistry II (lab) 1 hr
The laboratory to accompany CHEM125. The techniques learned in CHEM122 are reemphasized and supplemented. Preparation of a laboratory notebook is required. The sequence of CHEM121, CHEM122, CHEM125 and CHEM126 can constitute the customary year of general chemistry. Laboratory: three hours per week.
Coreq: CHEM125

CHEM177/178/179 Special Topics 1/2/3 hrs
Covers specific chemistry topics not discussed in any regular, introductory chemistry course.
Prereq: department permission

CHEM270 Survey of Organic Chemistry 4 hrs
A comprehensive one-semester survey course in organic chemistry. Includes aliphatic and aromatic compounds plus functional group chemistry. Chemistry majors and other students requiring a full-year sequence of organic chemistry should enroll in CHEM371 and CHEM372. Lecture: four hours per week.
Prereq: CHEM121/122

CHEM271 Organic Chemistry Laboratory 1 hr
Instruction in the basic manipulative techniques of experimental organic chemistry and experience with organic chemicals. Laboratory: three hours per week.
Prereq/Coreq: CHEM270

CHEM277/278/279 Special Topics 1/2/3 hrs
Covers specific chemistry topics not discussed in any regular chemistry course at this level.
Prereq: one 100-level chemistry course and department permission

CHEM281 Quantitative Analysis 4 hrs
A lecture and laboratory course treating instrumental, gravimetric, and volumetric analysis, and equilibrium. Lecture: two hours per week. Laboratory: six hours per week.
Prereq: CHEM123/124 or CHEM125/126

- CHEM282 Honors**
Quantitative Analysis 4 hrs
A lecture and laboratory course treating instrumental, trace, separation and characterization techniques. Lecture: two hours per week. Laboratory: six hours per week.
Prereq: CHEM125/126 or CHEM123/124 and consent of honors coordinator
- CHEM287/288/289 Cooperative**
Education in Chemistry 1/2/3 hrs
Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. Graded on a credit/no-credit basis. No credit granted toward chemistry degree programs, except with departmental permission.
Prereq: CHEM123/124 or CHEM125/126; admission by application only; sophomore standing
- CHEM297 Undergraduate Research**
in Chemistry 1 hr
An independent, original endeavor involving laboratory and/or library study under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.
Prereq: department permission
- CHEM325 Methodology for**
Secondary Chemistry Teachers 3 hrs
A comprehensive methods course for teaching chemistry in secondary schools. Students use modern technology to design and deliver instructional material and demonstrations for classrooms laboratories. CHEM325 will examine inquiry, computer-based instruction, computer data acquisition and other methodology. Two hours of lecture and three hours of lab per week.
Prereq: CHEM123/124 or CHEM125/126; CHEM281 or CHEM282; CHEM270/271 or CHEM372/373 or CHEM372/376
- CHEM332 Inorganic Chemistry** 2 hrs
This course will discuss the fundamental themes of bonding, structure and reactivity, primarily in the context of inorganic chemistry. In addition, the course will give students an introduction to some of the newer and more exciting areas of interest to inorganic chemists, such as catalytic cycles and bioinorganic chemistry.
Prereq: CHEM372/373 or CHEM376
- CHEM340 Introduction**
to Industrial Chemistry 3 hrs
Discussion of the important aspects of the manufacture and chemistry of the major organic and inorganic chemicals and their use through commercially available products such as polymers. Includes environmental and economic aspects of industry. Lecture: three hours per week.
Prereq: CHEM123/124 or CHEM125/126; CHEM270 or CHEM371/372; and PHY221 or PHY223
- CHEM341 Fundamentals of**
Material Science 3 hrs
A general overview of the fundamental principles of materials science. Addresses the relationship of
- atomic/molecular structure to physical properties for metals, ceramics, glasses, polymers, semiconductors, and composite materials. Lecture: three hours per week.
Prereq: CHEM123/124 or CHEM125/126; CHEM270 or CHEM372
- CHEM351 Foundations**
of Biochemistry 4 hrs
Deals with biological structures and the interactions that confer activity upon biological molecules. Metabolism and synthesis of biological molecules, and the controls that integrate the various process at the molecular and cellular level are presented. Bioenergetics, including equilibria, catalysis, and the production/utilization of biological forms of energy, are discussed. *Not open to freshmen and graduate students.*
Prereq: CHEM270 or CHEM372
- CHEM361 Fundamentals**
of Physical Chemistry 3 hrs
Calculus-based introduction to quantum mechanics, thermodynamics and kinetics. Serves as survey course for general curricula and major. Lecture: three hours per week.
Prereq: MATH120, CHEM281 or CHEM282; Prereq/Coreq: PHY222 or PHY224
- CHEM371 Organic Chemistry I** 3 hrs
The first semester of a two-semester sequence covering the general principles of organic chemistry for students specializing in science and those preparing for dentistry or medicine. Lecture: three hours per week. Credit cannot be earned in both CHEM270 and CHEM371.
Prereq: CHEM123/124 or CHEM125/126
- CHEM372 Organic Chemistry II** 3 hrs
A continuation of CHEM371. CHEM371 and CHEM372 constitute the customary year of foundation/lecture work in organic chemistry. Lecture: three hours per week. Restriction: C- or better in CHEM371.
Prereq: CHEM371
- CHEM373 Organic**
Chemistry Laboratory 2 hrs
Covers the basic techniques involved in organic chemistry. Laboratory: six hours per week.
Prereq/Coreq: CHEM372
- CHEM376 Honors Organic**
Chemistry Laboratory 2 hrs
Covers the basic techniques involved in organic chemistry for students of superior ability. The sequence of CHEM371, CHEM372 and CHEM376 can constitute the customary year of organic chemistry. Laboratory: six hours per week.
Prereq/Coreq: CHEM372 and consent of Honors Coordinator
- CHEM377/378/379 Special Topics** 1/2/3 hrs
Covers specific chemical topics not discussed in any regular chemistry course at this level.
Prereq: department permission
- CHEM381 Instrumentation**
for Chemical Technology 2 hrs
A lecture and laboratory course that surveys various types of analytical instrumentation and their uses in chemical industry. Lecture: one hour per week. Laboratory: three hours per week.
Prereq: CHEM281, CHEM270 or CHEM372; and CHEM271 or CHEM373 or CHEM376.
- CHEM387/388/389 Cooperative**
Education in Chemistry 1/2/3 hrs
Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. *Graded on a credit/no-credit basis. For junior-level students. No credit granted toward chemistry degree programs, except with department permission.*
Prereq: junior standing
- CHEM397 Undergraduate**
Research in Chemistry 1 hr
An independent, original endeavor involving laboratory and/or library study, under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.
Prereq: department permission
- CHEM406 The Nature of Science** 1 hr
This course examines the nature of scientific evidence, inquiry, hypothesis, models and laws. The development of science is put in the context of the structure and history of the scientific community. Interactions among scientists and between scientists and the rest of society are studied from an ethical perspective. *Available only to secondary education majors in chemistry, biology, earth science and physics. Equivalent to BIOL406, ESSC406 and PHY406.*
Prereq: CHEM123 and CHEM124, department permission for nonchemistry majors
- CHEM411 Toxicology I** 2 hrs
An introduction to the principles and methods of toxicology. Special cases of toxic response including carcinogenesis, teratogenesis and mutagenesis, and the effects of radiation are discussed. Lecture: two hours per week.
Prereq: CHEM270 or CHEM372
- CHEM412 Toxicology II** 3 hrs
Discussion of the metabolism of toxicants and their effect on specific organ systems; specific classes of toxicants and legal aspects of toxicology. Lecture: two hours per week.
Prereq: CHEM411; biochemistry recommended
- CHEM413 Toxicology Laboratory** 2 hrs
A lecture and laboratory covering the techniques employed in a toxicology laboratory including methods of calculation, interpretation and presentation of experimental data. The theory and practical aspects of toxicological procedures will be discussed. Lecture: one hour per week. Laboratory: three hours per week.
Prereq: CHEM411; CHEM281 recommended

CHEM415 Environmental Chemistry 3 hrs
A survey of environmental and energy-related problems and the ways in which chemistry may be applied to them. Important topics include air and water pollution, energy and other resources, solid wastes and recycling, and toxic chemicals. Lecture: three hours per week.
Prereq: CHEM123/124 or CHEM125/126; CHEM270 or CHEM372 and CHEM281 recommended.

CHEM432 Advanced Inorganic Chemistry 3 hrs
An advanced-level treatment of the newer inorganic chemical developments, with emphasis on theoretical advances in the interpretation of bonding and reactivity of inorganic compounds. Lecture: three hours per week.
Prereq: CHEM465 or department permission; CHEM332 recommended

CHEM433 Inorganic-Organic Synthesis Laboratory 2 hrs
Covers advanced preparative and analytical techniques of inorganic and organic chemistry including extensive use of IR, NMR, UV-vis and other instruments. Laboratory: six hours per week.
Prereq: CHEM281 or CHEM282; and CHEM373 or CHEM376

CHEM451 Biochemistry I 3 hrs
Chemistry of biologically significant compounds such as proteins, nucleic acids, carbohydrates and lipids. Enzymes are introduced, bioenergetics is discussed and the most central topics of metabolism are outlined. This course is intended as a one-semester survey of biochemistry for health science students and as the first semester of a two-semester sequence for chemistry, biology and toxicology students. Lecture: three hours per week.
Prereq: CHEM123/124 or CHEM125/126; and CHEM270 or CHEM372

CHEM452 Biochemistry II 3 hrs
Continues the survey of biochemistry begun in CHEM451. Membranes and transport, enzyme kinetics, further topics in metabolism, replication, transcription, translation and regulation of cell processes are discussed. Lecture: three hours per week. Restrictions: C- or better in CHEM451.
Prereq: CHEM451

CHEM453 Biochemistry Laboratory 2 hrs
Theory and application of preparative and analytical techniques in the investigation of the biochemical and biophysical properties of proteins and nucleic acids. Emphasis is placed on communication of experimental results in the form of scientific manuscripts. Laboratory: six hours per week.
Prereq: CHEM451 or CHEM351; CHEM271 or CHEM373 or CHEM376; and CHEM281 strongly recommended

CHEM461 Chemical Thermodynamics and Kinetics 3 hrs
The study of the principles of thermodynamics, the equilibrium properties of systems and the rates of chemical reactions. Lecture: three hours per week.
Prereq: PHY224 and CHEM281 or CHEM282; Prereq/Coreq: MATH223

CHEM463 Physical Chemistry Laboratory 2 hrs
Determination of the physical properties of substances, rate studies and measurement of the thermochemical properties. Emphasis on scientific report writing and oral presentation of work. Laboratory: six hours per week. Restrictions: C- or better in CHEM361.
Prereq: MATH121 and CHEM361 or CHEM461

CHEM465 Quantum and Statistical Mechanics 3 hrs
The study of quantum mechanics and its application to atomic structure, molecular bonding and spectroscopy. An introduction to statistical mechanics and modern theories of the rate constant. Lecture: three hours per week.
Prereq: CHEM461

CHEM475 Introduction to Polymer Chemistry 3 hrs
An emphasis on the organic chemistry involved in the preparation of synthetic high polymers. Topics include: chain-growth vinyl polymers, step-growth polymerization, copolymerization, cationic and anionic polymerization, and complex coordination catalysts. Lecture: three hours per week.
Prereq: CHEM270 or CHEM372

CHEM477/478/479 Special Topics 1/2/3 hrs
Covers specific chemistry topics not discussed in any regular chemistry courses at this level.
Prereq: department permission

CHEM481 Instrumental Analysis 4 hrs
Theory and practice of chemical analysis and measurements and data processing by instrumental methods. Lecture: two hours per week. Laboratory: six hours per week.
Prereq: CHEM281 or CHEM282; and CHEM463; Prereq/Coreq: CHEM465

CHEM485 Introduction to Radiotracer Techniques 2 hrs
Measurement of radiation and principles of radiation safety; experiments with emphasis on beta and gamma-ray counting and handling radioactivity. Lecture: one hour per week. Laboratory: three hours per week.
Prereq: CHEM123/124 or CHEM125/126; and either CHEM281, one science laboratory course above the 200-level or department permission

CHEM487/488/489 Cooperative Education in Chemistry 1/2/3 hrs
Full- or part-time employment at an industrial, federal or state agency chemistry laboratory providing an applied experience in chemistry. Amount of credit granted determined by the nature of job responsibilities and/or duration of placement. Graded on a credit/no-credit basis. For senior-level students.

CHEM497/498/499 Undergraduate Research in Chemistry 1/2/3 hrs
Independent, original endeavors involving extensive library and/or laboratory study, under the guidance of a chemistry faculty member. A formal written report is required at the end of the semester.
Prereq: department permission

Classics Courses (CLAS)

CLAS104/HIST104 Quest for Power: Famous Figures in History 3 hrs
An examination of the lives and times of select leaders from the ancient and modern worlds. Examples of figures to be covered are Pericles, Nero, Napoleon I and Adolf Hitler. Major literary monuments of the periods will be examined as well. Team taught by a member of the History Department and a classicist. This course satisfies one literature or one history requirement. Note: see honors humanities courses.

CLAS106/LITR106 Rome and America 6 hrs
An investigation into problems and pressures comparing the people and culture of ancient Rome and modern America, considering individual hopes and ideals, religious beliefs and ideas about death, government, morality, love and sex. Team taught by a member of the English Department and a classicist. These courses must be taken concurrently and satisfy two literature requirements. Note: see honors humanities courses.

CLAS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLAS181/LITR181 The Legacy of Greece 3 hrs
An introduction to Greek epic, drama, poetry, history and philosophy, illustrating the influence of the Greek tradition on western civilization. The literature is read in English translation. Representative examples of Greek architecture and sculpture also are examined. Team taught by a classicist and/or a member of the English Department. This course satisfies one literature requirement. Note: see honors humanities courses.

CLAS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLAS301 Classical Mythology 3 hrs
An examination of classical Greek and Roman mythology, chiefly through the study of literary and artistic works. The influence of classical mythology in later literature will also be considered.

CLAS321/HIST321/WGST321 Women and Gender in the Ancient World 3 hrs
An investigation of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.

CLAS377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLAS477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLAS497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Clinical Laboratory Sciences Courses (CLSC)

CLSC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLSC200 Clinical Laboratory Techniques 3 hrs
Basic skills necessary to function in a clinical laboratory; e.g., phlebotomy, use of the microscope, specimen collection and preparation, pipetting and lab safety.

CLSC201 Phlebotomy Techniques 3 hrs
Phlebotomy Techniques is presented in a lecture-laboratory format. The course is designed to present the theory of blood collection and the practical techniques for venipuncture and skin puncture. Topics included in the course will cover the phlebotomist's role, professionalism and ethics, laboratory and hospital organization, specimen collection techniques, various blood drawing equipment, patient interaction and some medical and laboratory terminology.
Prereq/Coreq: AHPR200 or department permission

CLSC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLSC300 Molecular Diagnostics 3 hrs
This course covers molecular diagnostic techniques in the clinical laboratory. Topics will include laboratory diagnosis of infectious and genetic diseases through cytogenetic, molecular cytogenetic and DNA molecular technology.

CLSC307 Urinalysis, Body Fluids and Hemostasis 3 hrs
Lecture and laboratory covering urines, body fluids and hemostasis. Specimen collection and handling, physical examination, chemical testing, and microscopic evaluation of urines and body fluids; evaluation of hemostasis testing and hemostasis theory.

CLSC335 Clinical Immunology 4 hrs
Lecture and laboratory presenting theory, basic principles, and practical experience in clinical immunology. The correlation of basic principles to human disease state.
Prereq: CLSC200 or permission of instructor

CLSC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CLSC387 Cooperative Education in Clinical Laboratory Science 3 hrs
Three or four months of full-time employment at a clinical, research or industrial laboratory or related area chosen for providing a practical educational experience in clinical laboratory sciences. The program consists of two work experiences alternating with full-time attendance at the University. Offered on a graded or credit/no-credit basis.
Prereq: CHEM270 and CHEM271; permission of program director

CLSC401 Laboratory Management/ Education 3 hrs
Basic management skills for laboratory personnel and laboratory. Personnel practices, equipment and reagent purchase, and laboratory information systems including computer applications, laboratory statistics and evaluation of methods are covered in this lecture course.
Prereq: MATH170 or equivalent

CLSC402 Clinical Chemistry 3 hrs
This lecture course covers the relationship of clinical chemistry to diagnosis, prognosis, and treatment of disease. Focus will be on testing procedures, instrumentation and controlling the functions in order to provide correct information to the medical staff.
Prereq: CHEM351 or permission of instructor

CLSC403 Clinical Chemistry Laboratory 2 hrs
This laboratory course includes theory, instrumentation, and current procedures used in clinical chemistry laboratories. Analysis will be done on clinical specimens, and a clinical chemistry quality-control program will be integrated throughout the semester.

CLSC405 Cytotechnology Clinical Internship 14 hrs
Microscopic study of cellular alterations indicative of cancer and precancerous conditions, bacterial, viral and parasitic infections, and hormonal abnormalities; cytogenetics; and a research project.
Prereq: program approval

CLSC406 Cytotechnology Clinical Internship 14 hrs
Continuation of CLSC405.
Prereq: program approval

CLSC407 Hematology 4 hrs
This lecture and laboratory course covers the theory and application of hematological test procedures, interpretation of results, problem solving, and correlation of laboratory findings with disease states. *Not open to those with credit in BIOL407.*

CLSC410 Cytogenetics, Clinical Internship I 14 hrs
CLSC410 and CLSC411 cytogenetics clinical rotation I and II will be used for the clinical practice for the cytogenetics track in the CLS program. The student will set up tissue cultures, harvest cells, prepare slides for analysis and prepare analysis for a broad spectrum of genetic abnormalities. This will include photograph and computer-assisted chromosome analysis. Procedures will include chronic villus, fragile X and sister chromatid exchanges.
Prereq: program approval

CLSC411 Cytogenetics, Clinical Internship II 14 hrs
Continuation of CLSC410.
Prereq: program approval

CLSC412 Clinical Laboratory 14 hrs
Individual Clinical Laboratory practicum experience. Experiences will be in the specialty areas of the clinical laboratory including, but not limited to molecular diagnosis.
Prereq: department permission

CLSC416 Basic Histotechnique and Histochemical Staining Methods 12 hrs
Didactic and practicum experience in preparing histologic sections for light microscopy, including the study of more than 50 different histologic staining methods and their specific applications.
Prereq: program approval

CLSC417 Basic Electron Microscopy 8 hrs
Didactic and practicum experience in basic biological electron microscopy. Electron microscopic histochemistry and special techniques are also covered. Emphasis is on the electron microscope as a medical diagnostic tool.
Prereq: program approval

CLSC418 Immunohistochemistry 4 hrs
A course designed to teach basic and advanced procedures of fluorescent and enzyme-labeled antibody techniques. The course includes the preparation of tissues, staining with labeled antibodies and the use of fluorescence microscopes in clinical medicine and research.
Prereq: program approval

CLSC419 Internship Special Histotechnology Techniques 4 hrs
A course designed to present didactic and practicum experience in molecular pathology, including in-situ-hybridization and DNA analysis.

Cytogenetics will be presented with emphasis on preparing karyotypes and chromosome identification. A research project will be required on a related topic, then formalized and presented as a lecture. Management and education methodologies will be presented.

Prereq: program approval

CLSC432 Clinical Microbiology 3 hrs
Course covers mechanisms of pathogenesis associated with specific bacterial, viral, fungal and parasitic etiological agents of human disease.

CLSC433 Clinical Microbiology Laboratory 2 hrs
Laboratory will cover methods of detection, isolation, enumeration and identification of human pathogenic microorganisms encountered in the clinical microbiology laboratory.
Coreq: CLSC432

CLSC434 Advanced Immunohematology 3 hrs
Principles and procedures used in the blood bank. The laboratory is designed to simulate problem situations in the clinical laboratory.
Prereq: CLSC335

CLSC450 Hematology/Coagulation Practicum 5 hrs
An intensive, hands-on clinical experience in routine hematology, coagulation and special techniques at an advanced level.
Prereq: acceptance into clinical track

CLSC452 Clinical Immunology/ Immunohematology Practicum 5 hrs
An intensive, hands-on clinical experience at an advanced-level of instruction in blood banking, immunology and serology.
Prereq: acceptance into clinical track

CLSC454 Clinical Chemistry Practicum 5 hrs
An intensive, hands-on clinical experience at an advanced level of instruction in automated chemistry, radioimmunoassay, electrophoresis and toxicology.
Prereq: acceptance into clinical track

CLSC456 Clinical Microbiology Practicum 5 hrs
An intensive, hands-on clinical experience at an advanced-level of instruction in clinical microbiology.
Prereq: acceptance into clinical track

CLSC459 Clinical Microbiology Practicum II 3 hrs
This is an intensive introductory lecture and laboratory course highlighting medically important fungi, disease states and laboratory methods of isolation and identification.
Prereq: acceptance into clinical track or permission of instructor

CLSC477/478/479 Special Topics 1/2/3 hrs
Advanced level courses covering specific topics in clinical laboratory sciences not discussed in other clinical laboratory sciences courses.
Prereq: permission of instructor

CLSC487 Cooperative Education in Clinical Laboratory Science 3 hrs
Three to four months of full-time employment at a clinical, research or industrial laboratory or related area chosen for providing a practical educational experience in clinical laboratory sciences. The program consists of two work experiences alternating with full-time attendance at the University. *Offered on a or credit/no-credit basis.*
Prereq: CLSC387; permission of program director

CLSC497/498/499 Independent Study 1/2/3 hrs
Independent, original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory program faculty member or clinical associate faculty member.
Prereq: permission of the instructor

Communication Technology Courses (CMT)

CMT104 Introduction to Communication Technology 2 hrs
An introduction to the field of communication technology. Communication theory and the graphic and telecommunication industries. Lecture: two hours per week.

CMT121 Graphic Communication 3 hrs
Preparation and design of graphic media. The theory and application of effective communications. Information collection, analysis and dissemination; survey of the graphic communication industry. Lecture: two hours per week. Laboratory: two hours per week.

CMT177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CMT204 Photographic Communication 3 hrs
Basic functions, principles and applications of photography in graphic communication. Lecture: two hours per week. Laboratory: two hours per week. Students must furnish their own camera and photo materials.

CMT205 Digital Photo-Technology 2 hrs
A course designed to develop an understanding of pixel-based images and color theory as applied in graphic communication. Students will learn all aspects of pixel based imaging software through hands-on demonstration and laboratory work.

CMT207 Digital Imaging and Reproduction 3 hrs
Study and laboratory work in scanning, measuring and reproducing graphic images as applied to offset presswork and other forms of digital

reproduction which includes the preparation and proofing of files for color separation and electronic transfer.
Prereq: CMT104 or CMT121

CMT231 Introduction to Computer Graphic Systems 3 hrs
Students are provided with opportunities to work on a variety of vector and paint systems. Students will learn terminology for graphics, hardware and software. Student will explore applications of graphics to their own field of study. Lecture and laboratory course. *Course does not count for CAD majors.*

CMT277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CMT285/286/287 Preprofessional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

CMT301 Multimedia Authoring Techniques 3 hrs
Students are provided with opportunities to design and develop multimedia presentations. During this course there will be lecture on the history of multimedia presentation, theories involving multimedia and how to properly script for a variety of multimedia productions. Students are encouraged to work in groups to produce usable multimedia presentations.
Prereq: CMT231 or CTAT242

CMT304 Advanced Photographic Communication 3 hrs
Photographic theory and techniques, with particular emphasis upon commercial and industrial applications. Lecture: two hours per week. Laboratory: two hours per week. The student must furnish a camera and photo materials.
Prereq: CMT204

CMT305 Communication Transmission Systems 3 hrs
Consideration of source, encoder (transmitter), channel and receiver functions. Principles of line communication, a study of various systems and future developments in communication transmission systems.

CMT318 Graphic Arts Workshop 3 hrs
Selected topics in the field of graphic arts technology, such as composition, press work, screen process and advanced photomechanics. *May be repeated for additional credit.*

CMT377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CMT387 Co-operative Education 3 hrs
Graduate students who are completing research (Master's or Specialist), capstone or internship experiences and have completed all other graduate program course requirements may remain affiliated with the University through Continuous Enrollment. Enrollment enables access to library, health services and other resources. Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis.
Prereq: department permission

CMT404 Photo Communication Workshop 3 hrs
Selected topics in photo communications, such as commercial and industrial photography, photo journalism, sensitometry and photography, and photo processing. The class schedule describes the specific topic being offered during a given semester. *May be repeated for credit.*
Prereq: CMT304

CMT408 Telephone Technology 3 hrs
This class will cover an introduction to telecommunications theory and practice. The course content will include both traditional private branch exchanges (PBX's) and voice over Internet protocol (VoIP) systems. The administration of these systems, their configuration and the testing of the hardware and software components will be covered. Lecture/lab course.
Prereq: CMT305

CMT409 Emerging Technologies in Storage and Retrieval 3 hrs
Conventional as well as emerging technologies of information storage and retrieval. Lecture and laboratory.

CMT421 Web Publishing Technology 3 hrs
An introduction to HTML coding, web page design, web page editors, graphics, sound files and multimedia. Also included will be an introduction to online services, servers and ongoing maintenance of the web site. *Not available to students in Continuing Education.*
Prereq: CMT121/205

CMT425 Communication Technology and Social Change 3 hrs
The social implications of recent and future developments in communication technology. The effects upon education, research and scientific knowledge, business and entertainment.

CMT436 Electronic Publishing Technology 3 hrs
The application of electronic design and layout principles to publication and presentation documents. Develop skills in graphics, type, file creation and manipulation, word processing interface, and output of paginated, camera-ready copy through several software packages.

CMT470 Senior Seminar in Communication Technology 2 hrs
Guest speakers and/or site visitations will be used to illustrate the application of new communication technologies common to business, industrial or governmental environments.

CMT477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CMT487 Co-operative Education 3 hrs
Graduate students who are completing research (Master's or Specialist), capstone or internship experiences and have completed all other graduate program course requirements may remain affiliated with the University through Continuous Enrollment. Enrollment enables access to library, health services and other resources. Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis.
Prereq: department permission

CMT497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Construction Management Courses (CNST)

CNST125 Introduction to Construction 2 hrs
An overview of the construction industry, including the developing, planning, and scheduling of construction projects. Site development, material usage, specifications, estimating and managing cost control are included as topic areas.

CNST177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CNST201 Construction Systems 3 hrs
Structural systems, associated nonstructural components and considerations appropriate to mechanical, electrical, plumbing and support equipment. Lecture and laboratory course.

CNST202 Construction Materials 3 hrs
The characteristics, specifications, and applications of basic construction materials such as stone, concrete, wood, glass, plastics, metals and bituminous products. Lecture and laboratory course.
Prereq: CNST125

CNST206 Surveying 3 hrs
The fundamental use of the transit and level. Linear measurement, angle measurements, differential and profile leveling, a simple transverse survey, and the keeping of accurate notes. Lecture and laboratory course.
Prereq: MATH107

CNST213 Construction Safety 3 hrs
Philosophical, social, economic, and technological bases for safety related to the development of a construction job-site safety plan. Emphasis is also placed on the OSHA and MIOSHA construction industry standards.

CNST228 Construction Graphics 3 hrs
Basic print reading skills. Symbols, terminology, print organization, and basic material take-off techniques. Sketching and some basic drawing skills will be required. Lecture and laboratory course.
Prereq: CNST125 and CNST201

CNST229 Analysis of Commercial Prints 3 hrs
Development of the ability to read and interpret prints. Actual commercial prints and project manuals are used for analysis and material take-off procedures. Preparation of field drawings using graph paper and sketching techniques. Lecture and laboratory course.
Prereq: CNST228

CNST277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CNST301 Estimating and Building 3 hrs
The principles and procedures for developing estimates, bids and contracts for residential and commercial construction.
Prereq: CNST201 and CNST229

CNST302 Contract Documents, Regulations, and Specifications 3 hrs
The different types of construction contracts, construction documents and regulations, the role of specifications, and the project manual in the construction process.
Prereq: CNST201, LAW293 and CNST125 or department permission

CNST303 Electrical, Mechanical, and Equipment Systems 3 hrs
This course provides an understanding of mechanical, electrical, plumbing, drain-waste-vent, equipment considerations and other specialized nonstructural systems found in commercial buildings.
Prereq: CNST228

CNST304 Construction Estimating and Bidding 3 hrs
The principles and procedures for developing estimates, bids and contracts for heavy/highway and commercial construction. Computer applications are included.
Prereq: CNST229 and CNST302

CNST361 Planning and Scheduling 3 hrs
The planning process of the construction industry. Various scheduling systems commonly used within the industry are studied including scheduling software.
Prereq: CADM105 and CNST229

CNST377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

CNST387 Cooperative Education in Construction Management 3 hrs
Construction management majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-credit basis. Credit applicable to the major in construction management only.*

Prereq: department permission

CNST403 Production Control 2 hrs
Methods of control used in the construction industry for production problems involving the estimate, bidding schedules, cost analysis, cost comparison, scheduling systems, evaluation and debriefing.

Prereq: ACC130, CNST304 and CNST361

CNST406 Construction Law 2 hrs
Common basic legal problems associated with construction contracting. Current areas of concern and their significant implications are covered.

Prereq: CNST302

CNST412 Fundamentals of Structural Design 3 hrs
Fundamentals and theory of construction design including soil mechanics and basic structural elements. This is an elementary, analytical and practical approach to the principles and physical concepts of statics, strength of materials, and soils as they relate to construction.

Prereq: PHY221, CNST202 and MATH107

CNST426 Mechanical and Electrical Construction Applications 3 hrs
This course provides the student with a broad understanding of the principles and construction of plumbing, heating, ventilating and air conditioning (HVAC) and electrical systems for nonresidential buildings. Emphasis will be placed on project management issues relating to these systems including estimating, coordinating, change orders and commissioning. *Available only to students in the construction management program.*

Prereq: CNST303

CNST436 Heavy/Highway Construction Contracting 3 hrs
An examination of construction methods and contracting procedures in the heavy/highway industry. The course will focus on actual projects underway or recently completed by agencies of the federal, state, county and local governments involved in the construction of new as well as renovation/rehabilitation of old infrastructure elements. *Available only to students in the construction management program.*

Prereq: CNST202/302/304

CNST446 Senior Seminar on Professional Issues in Engineering, Technology and Construction 1 hr
The seminar course addresses the important elements of professional conduct essential for the starting professional to succeed in technology-based industries. The course will focus on building the appropriate personal skills including networking, work relations, technical communications, ethics, diversity sensitivity, professionalism, public speaking and community service.

CNST450 Fundamentals of Construction Project Management 3 hrs
Students combine many previous concepts and skills into a single comprehensive project that includes estimating, scheduling, production control techniques and documentation procedures. Lecture and laboratory course.

Prereq: ENGL324 (B or better), MGMT384, CNST304 and CNST361

CNST477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

CNST487 Cooperative Education in Construction Management 3 hrs
The second in a two-course sequence for construction management majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. *Graded on a credit/no-credit basis.*

Prereq: CNST387 and department permission

CNST494/495/496 Industry-Based Special Topics 1/2/3 hrs
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

CNST497/498/499 Directed Study in Construction Management Techniques 1/2/3 hrs
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

Prereq: department permission

College of Business Courses (COB)

COB177/178/179 Special Topics 1/2/3 hrs
Team-taught current topics related to career preparation for business and industry.

Prereq: department permission

COB200 Introduction to Business 3 hrs
This course is designed to provide students with an understanding of the business professions, knowledge of business disciplines and to begin assessment and development of skills important for effectiveness in business as an individual and a member of a work team. At the end of this course, students will have developed an understanding of how the different business disciplines operate and are interrelated. Students will have developed a career objective and have had an opportunity to learn, practice and develop interpersonal communication, and group and personal effectiveness skills. *Both students who have decided on a major within the College of Business and those who are undecided about their major are welcome in this course.*

COB277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COB285/286/287 Preprofessional Internships 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.

Prereq: department permission

COB377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COB477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

COB497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem in business not otherwise treated in department courses.

Prereq: department permission

Computer Science Courses (COSC)

COSC101 Computer Science Concepts and Practical Applications 3 hrs
The course emphasizes the uses and capabilities of computers in our society. Students will be exposed to several popular applications through hands-on lab activities. No previous experience with computers is assumed. *Counts toward the computer science minor if taken prior to or concurrently with COSC111 Introduction to Programming.*

COSC105 Everyday Computing and Social Responsibility 3 hrs
Two hours lecture/discussion, two hours lab. This course combines extensive exploration of ethical issues faced by everyday computer users with

hands-on practice using a broad variety of online and computer productivity tools to support socially responsible computer use.

COSC111 Introduction to Programming 3 hrs

An introduction to computers, programming, algorithm development and a high-level language such as Java. In particular, strategies for problem solving, problem analysis, algorithm representation and algorithm verification are balanced with actual program development using good design and documentation techniques. The first course in the computer science major and minor, but open to all students.

Prereq: minimum ACT score of 26, minimum SAT score of 640 or math placement test in elementary algebra greater than or equal to 73, MATH105, MATH107, MATH118, MATH119 or MATH120

COSC145 Introduction to FORTRAN Programming 3 hrs

An introductory course for persons wishing to learn programming and applications of computers. Using the FORTRAN language, students develop and run programs to solve a variety of problems. *Credit will not be given for more than one of COSC145 and COSC245. Does not count toward computer science major or minor.*

Prereq: minimum ACT score of 19, minimum SAT score of 520 or math placement test in elementary algebra greater than or equal to 53

COSC146 Applied Programming 3 hrs

Introduction to computer programming for the non-major. Introduces students to integrated development environments such as Visual Basic and other application tools. Students work in a combination of lectures and supervised computer labs. *Does not count towards the computer science minor, major or curriculum.*

COSC161 Explorations in Robotics 3 hrs

Introduction to the theory of robotics and autonomous agents. Students will be exposed to technical and social aspects of robots in society. Students will complete selected readings, write several short papers and design and program simple robots. Rudiments of computer science topics as applied to robotics will be covered.

COSC177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COSC201 Computer Visualization and Multimedia 3 hrs

This course concentrates on concepts of computer visualization/presentation of information. The focus will be on the Internet and using multimedia. It will encourage hands-on problem solving using various applications programs. Each student will do a semester project of their choice.

Prereq: COSC101 or department permission

COSC205 Computer Hardware and Software Systems 3 hrs

An applied introduction to computers including: computer hardware, operating systems, Web design, networking, trouble shooting and maintenance of computers. Lab projects include: Taking apart computers, installing operating systems, building a network and creating a web page.

Prereq: CADM105 and COSC101

COSC211 Programming Data Structures 3 hrs

The second course in an introductory sequence for the computer science major, minor and others. Continues software engineering methodology through specification, design, coding and program correctness. Nested procedures and functions, scope and recursion. Introduction to data structures such as stacks, queues, linear lists, trees, sets and files. Analysis of sorting and searching algorithms.

Prereq: COSC111

COSC221 Computer Science Organization I 3 hrs

Introduces students to basic concepts of computer hardware and organization including: computer structure, machine language, instruction execution, traps and interrupts, digital representation of data, computer systems organization, elementary digital circuits, including memory and arithmetical. Students will write several programs in an assembly language simulator.

Prereq: COSC111, COSC145, COSC245 or IS219 or permission of the School of Engineering Technology

COSC231 Internet-based Computing 3 hrs

Programming for the Internet, including GUI design and development, event-driven programming, web page design and construction, programming for current Internet and Web technologies. Ethical issues on the Internet.

Prereq: COSC111

Coreq: COSC211

COSC245 Computer Programming and Numeric Methods 3 hrs

An introductory programming course focusing on numerical algorithms fundamental to scientific computer work. Discussion of polynomial interpolation, numerical integration, solutions of systems of equations and error analysis. Using the FORTRAN language, students develop and run programs to solve a variety of problems. *Credit will not be given for more than one of COSC145 and COSC245. Does not count toward computer science major or minor.*

Prereq/Coreq: MATH121

COSC246 Programming in C++ 3 hrs

Introduction to computers, programming techniques and integrated development environments using C and C++. Students work in a combination of lectures and supervised computer labs. Emphasis is on problem solving using good design principles and documentation techniques. Does not count

towards the computer science minor, major or curriculum.

Prereq: COSC101, COSC111, COSC145, COSC146, MATH105, MATH107, MATH118, MATH119, MATH120, an ACT score of 26, a minimum SAT score of 640 or math placement test in elementary algebra greater than or equal to 73

COSC277/278/279 Special Topics 1/2/3 hrs

A 200-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.

COSC303 Applications in Computer Science 3 hrs

Information systems, simulation, graphics, audio communication, artificial intelligence, instruction and training, and communications. The student will write or use previously written programs in each of the above areas using microcomputers. These programs will use many languages and programs including LOGO, PASCAL, BASIC, electronic spreadsheet and a database program.

Prereq: COSC101, COSC211 and junior standing

COSC306 Methods of Teaching Computer Science in the Secondary Schools 3 hrs

Computer science programs in the high school, information and materials needed to prepare students for the teaching of computer science in these schools. Organization and content, methods of teaching and learning, security and maintenance of equipment, professional journals and magazines available for future growth, copying software and the legality of software duplication, dealing with diversity of abilities, problem-solving skills and strategies for debugging programs. This methods class does not count toward the major or minor.

Prereq: COSC342, CURR305 and admission to the teacher education program

COSC311 Algorithms and Data Structures 3 hrs

Linear lists, strings, arrays and orthogonal lists. Representation of trees and graphs. Storage systems, structures, storage allocation and collection. Symbol tables, searching and sorting techniques. Formal specification of data structures and data management systems.

Prereq: COSC211 and COSC221

COSC314 Computational Discrete Structures 3 hrs

Relations and algebraic structures, counting techniques, graphs, automata and languages and number theoretical algorithms. This course emphasizes discrete mathematical algorithms, their applications to problems in computer science and their implementations.

Prereq: COSC211 and MATH205

COSC315 Symbolic Computing 3 hrs

Symbolic computations and graphic representations in a computer algebra system such as mathematical; design of interactive notebooks; extensive use of electronic communications; applications from various areas of computer science, mathematics and the natural sciences; oral pre-

sentation of a project in an electronic classroom is required; lectures (two hours) and supervised lab (two hours).

Prereq: COSC111 and MATH122, minimum ACT score of 28, minimum SAT score of 670 or math placement test in college level math greater than or equal to 93

COSC321 Computer Organization II 3 hrs

Basic digital circuits, data representation and transfer, digital arithmetic. Digital storage and accessing, control functions, input-output facilities, systems organization, reliability, simulation techniques. Multiprogramming, multiprocessing and real-time systems.

Prereq: COSC211 and COSC221

COSC341 Programming Languages 3 hrs

Formal definition of programming languages; structure of statements; global properties of algorithmic languages; data description; run time representation of programs; procedural languages such as C or C++ and nonprocedural languages such as lisp or prolog. *Credit will not be given for both COSC341 and COSC342.*

Prereq: COSC211 and COSC221

COSC342 Programming

Languages for Educators 3 hrs

Formal definition of programming languages; structure of simple statements; global properties of algorithmic languages; structure of list processing, string manipulation, data description and simulation languages; run-time representation of program and data structures. Special emphasis will be placed on education-oriented languages. *Credit will not be given for both COSC341 and COSC342.*

Prereq: COSC211 and COSC221

COSC374 Applied Cryptography 3 hrs

An introduction to and survey of cryptographic techniques and algorithms. Classical techniques (rotation, transportation), block ciphers (DES, AES), stream ciphers and random sequences, hash functions (SHA), key management, public key algorithms (RSA), digital signature, authentication. Example implementation such as PGP, SSL and Kerberos.

Prereq: MATH170 and COSC211

COSC377/378/379 Special Topics 1/2/3 hrs

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide.

Prereq: COSC211, COSC221 and department permission

COSC388 Cooperative Education in Computer Science 3 hrs

Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in computer science. The program consists of two work experiences (COSC388/488) alternating with full-time attendance at the University. *Use on computer science major subject to department permission. Graded on a credit/no-credit basis.*

Prereq: junior or senior majoring in computer science, any 300-level course in computer science, admittance to program by application, department permission

COSC403 Seminar and

Project Design for Educators 3 hrs

Major project design and more formalized, structured programming. Each student will work on two original major programs, one of which will be a group project. The student will report on both projects (written and oral) and give a formal presentation of the individual project to the University community in the form of a public lecture.

Prereq: COSC311, COSC342 and senior standing

COSC405 Switching Theory 3 hrs

Switching algebra, gate network and sequential circuit analysis and synthesis. Boolean algebra, sequential circuit state and combinational circuit minimization, hazards and races, elementary number systems and codes.

Prereq: COSC211 and COSC221; open to juniors and seniors only

COSC421 Systems Programming 3 hrs

Batch-process systems programs, components and operating characteristics. Implementation techniques for parallel processing and interrupt handling. Overall structure of multiprogramming systems. Addressing techniques, file system design and management. Interprocess communication, design of system modules and interfaces.

Prereq: COSC221, COSC311 and COSC341

COSC422 Introduction to

Microprocessors 3 hrs

The fundamentals of small-system software development as it applies to microprocessors and minicomputers. Introduction to microprocessors and peripheral hardware; software and software development; applications. Students will have access to both microcomputers and a minicomputer to gain first-hand knowledge of this field.

Prereq: COSC221 or department permission

COSC423 Computer

Operating Systems 3 hrs

Computer operating systems functions and concepts. Processor allocation: multiprogramming and scheduling algorithms. Memory tasks and data management. The deadlock problem. Virtual memory, allocation strategies and analysis of their algorithms. Design, implementation and protection of I/O files. Survey of available computer operating systems.

Prereq: COSC221 and COSC311

COSC436 Web Programming 3 hrs

Students will learn how to set up and configure a web server and associated services. Topics covered will include: CGI, JavaScript, Web security tools, server-side programming multifiles applets, data description languages, database connectivity, scripting languages and distributed applications. Exposure to security and efficiency issues.

Prereq: COSC231, COSC311 and COSC341

COSC439 Computing

Network Principles 3 hrs

The basic concepts of computer communication systems with particular emphasis on communication hardware and microcomputer networks. Students will be involved in the development and writing of software components of communications

such as terminal emulators and file transfer packages. Basic communication theory and terminology, communication hardware devices, communication protocols and microcomputer networks.

Prereq: COSC221 and COSC311; COSC314 recommended

COSC444 Foundations of

Automata and Languages 3 hrs

A review of finite automata. A rigorous treatment of regular languages including closure properties and the Pumping Lemma. An investigation of context-free languages, context-free grammars, simplification of grammars, normal forms and related topics. Turing machines and the Halting Problem. Applications to lexical analysis.

Prereq: COSC311 and COSC314

COSC445 Compiler Construction 3 hrs

Review of programming language structures, translation, loading, execution and storage allocation. Compilation of simple statements. Organization and overall design of a compiler. Use of compiler writing languages.

Prereq: COSC341 and COSC444

COSC456 Microcomputer Graphics 3 hrs

A course in computer graphics using microcomputers. Display technologies. Raster graphics, displaying graphics primitives such as points, lines, curves, text and scan-conversion algorithms. Displaying graphs, functions, bar and pie charts, and applications. 2-D graphics including windowing, viewporting, window-to-viewport transformation, clipping algorithms, scaling, rotation and translation transformations. Interactive graphics. 3-D graphics; including scaling, rotation and translation transformations; parallel and perspective projections.

Prereq: COSC311 and MATH122, minimum ACT score of 28, minimum SAT score of 670 or math placement test in elementary algebra greater than or equal to 93

COSC461 Heuristic Programming 3 hrs

Programming techniques for problems with large-state spaces or uncertain knowledge: searches, heuristic evaluation, rule-based inference, approximate reasoning and adaptation using neural nets, genetic algorithms and reinforcement learning.

Prereq: COSC444

COSC471 Database Principles 3 hrs

A technical review of the theory and principles of database design and organization. The concepts and structures necessary to design and implement a database management system. Network, hierarchical and relational database models. Data normalization, data description languages, query languages, data integrity and security.

Prereq: COSC444 and COSC341

COSC477/478/479

Special Topics 1/2/3 hrs

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide.

Prereq: senior standing, major in computer science and department permission

COSC481 Software Engineering and Senior Project 3 hrs
This capstone course surveys the fundamentals of software engineering, including requirements analysis, design, disciplined implementation and evaluation. Students will work on a semester-long software project that employs principles learned in other computer science classes.
Prereq: COSC311 and department permission

COSC486/487/488 Cooperative Education in Computer Science 1/2/3 hrs
Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in computer science. The program consists of two work experiences (COSC388/488) alternating with full-time attendance at the University. *Use on computer science major subject to department permission. Graded on a credit/no-credit basis.*
Prereq: COSC388 and department permission

COSC493 Senior Project 1 hr
Intended for computer science majors in their senior year, this course assesses students' knowledge of the field's core subjects, surveys students to get reactions to and suggestions for the department's academic program, and provides guidance to students as they carry out a computing project and present it in a public forum as a poster presentation or talk. *Offered on a credit/no-credit basis.*
Prereq: COSC311, COSC341, COSC321, COSC444, senior standing or department permission

COSC497/498/499 Independent Study 1/2/3 hrs
A report or project on an approved subject in the field of computer science under the guidance of the staff of the Department of Computer Science.
Prereq: Major in computer science, junior or senior standing and department permission

College of Technology Courses (COT)

COT177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

COT277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COT377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COT477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

COT497/498/499 Independent Study 1/2/3 hrs
Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student.
Prereq: department permission

Counseling Courses (COUN)

COUN100 Career Exploration and Decision-Making 2 hrs
Self-exploration (values, interests, goals) as it relates to careers and the world of work. Presentation in an experimental format of career exploration and personal decision-making strategies and processes. Investigation of career planning and resources (people and materials).

COUN450 An Introduction: Counseling Concepts and Skills 3 hrs
Introduction to basic concepts of counseling relationships; training in basic counseling skills; experiential learning activities which focus on self-development, interpersonal relationships and related issues; and initial exposure to counseling theory and process. Open to juniors and seniors or by department permission; recommended for those planning a career in the helping professions.

COUN477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

COUN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Criminology Courses (CRM)

CRM277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CRM300 Criminal Justice 3 hrs
A critical view of the entire spectrum of criminal justice. The police, courts and corrections studied as interrelated institutions in the process of defining criminals.

CRM301 Criminology 3 hrs
The nature, incidence and prevalence of crime. Theory of crime and delinquency causation.

CRM320 Criminal Investigation 3 hrs
Introduction to the science of criminal investigations, including the methodology of crime scene investigations, evidence collection, preservation and analysis. Other topics include the constitutional, legal and historical concerns relevant to procedural issues of investigation.
Prereq/Coreq: CRM300

CRM321/SOCL321 Cooperation and Conflict in Society 3 hrs
The principles of cooperation, cooperation in our competitive-individualistic society, cooperative skills and forms of mutual aid are examined. Students learn cooperation through doing, as well as reading and writing, including a variety of group projects, exercises and discussion.
Prereq: SOCL105

CRM331 Introduction to Corrections 3 hrs
An examination of corrections/punishment in contemporary society, its historical development, structural dependency, relationship to the system of justice and problems of effectiveness.
Prereq: CRM300

CRM332 Community Corrections 3 hrs
An examination of the limitations of incarceration and the potential of community based alternatives.
Prereq: CRM300

CRM333/SOCL333 Violence and Society 3 hrs
An introduction to and survey of the multi-disciplinary study of violence and society. Issues specifically examined are mass institutions of media, culture and identity formation.
Prereq: SOCL105

CRM337/SOCL337 Deviance and Society 3 hrs
An introduction to the scientific study of deviance, society's reaction to deviance and the social strategies for managing deviance.
Prereq: SOCL105

CRM338/WGST338/SOCL338 Women, Crime and Justice 3 hrs
This course will offer a critical analysis of gender and criminal justice as it relates to women as victims, offenders and agents of the criminal justice system. Additionally, the social conditions of criminality, intervention strategies as well as social action and criminal justice policy reform will be examined.

CRM354 Juvenile Delinquency 3 hrs
The nature, incidence and measurement of juvenile delinquency; theories and causation; juvenile justice philosophies and treatment methods.

CRM370 White Collar Crime 3 hrs
An examination of the definitions, laws, causes and policy responses that shape crimes by corporations, government agencies, professionals and others engaged in legitimate occupations.

CRM377/378/379 Special Topics 1/2/3 hrs
A single topic is covered each semester, selected as the interest and/or problems change. Students may elect a special topics course several times, provided different topics are studied, but only twice for credit toward a major or minor in criminology.

CRM387 Cooperative Education in Criminal Justice 3 hrs
Practical experience in agencies or government settings to provide job skills. *Offered on a credit/no-credit basis.*
Prereq: department permission and junior standing

CRM412/SOCL412 Law and Society 3 hrs
Law as a social and cultural product; the interrelationships between law and social institutions. *Not open to those with credit in SOCL412.*
Prereq: SOCL105

CRM420 Drugs, Crime and Criminal Justice 3 hrs
Analysis of legal and illegal drugs and their relation to crime, costs associated with drug use and abuse, methodologies to collect data on drug theories, as well as drug control policies like D.A.R.E. and the War on Drugs and regulatory strategies as are applied to legal substances.
Prereq: CRM300 and CRM301, sophomore standing

CRM431 Policing in Society 3 hrs
The social and historical origin of the police; police culture, role and career; police in the legal system; police discretion; ethical development of police; police and the community; police organization and community control.
Prereq: CRM300

CRM432 Police Organization 3 hrs
An examination of the major theories of police organization and how these theories can enhance our understanding of policing and help solve problems facing the police in everyday life.
Prereq: CRM300

CRM447 Senior Seminar in Criminology 3 hrs
Summations and integrations of the various bodies of criminological knowledge and their applications to policies of crime prevention and control.
Prereq: CRM300, CRM301, SOCL250 and SOCL304

CRM460 Criminal Law II 3 hrs
The social, political, and historical evolution of criminal procedure with an emphasis on its application with regard to law enforcement and the judiciary.

CRM477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CRM487 Cooperative Education in Criminal Justice 3 hrs
Practical experience in agencies or government settings to provide job skills. *Offered on a credit/no-credit basis.*
Prereq: department permission

CRM488/489 Field Internship in Criminology and Criminal Justice 3 hrs each
A minimum of ten hours per week in a governmental or private agency dealing with the crime problem. The agency and the field instructor provide supervised learning experiences.
Prereq: junior standing and department permission; second semester juniors may be admitted by department permission

CRM497/498/499 Independent Study 1/2/3 hrs
Independent study, under the supervision of a department member, in areas in which the department does not offer a course.
Prereq: department permission

Creative Writing Courses (CRTW)

CRTW201 Introduction to Creative Writing 3 hrs
A writing workshop introducing the basic forms and methods of poetry and fiction, through student writing projects, workshop discussions and the reading of contemporary creative work in these genres. *This course is typically offered every semester.*

CRTW335 Imaginative Writing 3 hrs
The study and practice of the techniques of imaginative writing, including poetry and prose fiction. The elements of narration, including description, character development, plot structure and dialogue will be emphasized. Course may be repeated for additional credit if topic is different.
Prereq: one 200- or 300- or 400-level LITR course

CRTW422 Writer's Workshop: Fiction or Poetry 3 hrs
A seminar workshop for the student who wants more experience in imaginative writing. The class schedule will specify fiction or poetry for each particular workshop. This course may be repeated for additional credit if topic is different.
Prereq: CRTW335

CRTW426 Contemporary Forms 3 hrs
An advanced, reading-intensive course on contemporary and innovative forms of literature, emphasizing structural models, formal techniques and redefinitions of literary conventions.
Prereq: CRTW201 and any 200- or 300-level LITR course

Creative Scientific Inquiry Experiences (CSIE)

CSIE177 Anchor Foundation Course

CSIE277 Gateway Course

CSIE377 Next in Progress Course

Communication and Theater Arts Courses (CTAA)

CTAA165 Television Laboratory 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.
Prereq: CTAT130, CTAT131 and CTAT132; or department permission

CTAA166 Forensics 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. *Admission to the activity does not ensure credit.*
Prereq: department permission

CTAA167 Theatre Practice 1 hr
Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: heading a major technical crew for a faculty-directed production.

CTAA168 Interpretation 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. *Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)*
Prereq: CTAO210 or department permission

CTAA169 Radio Station WQBR 1 hr
Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one

activity or in several activities. *Admission to the activity does not ensure credit.*
Prereq: CTAT130 and CTAT131; or department permission

CTAA177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAA265 Television Laboratory 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.
Prereq: CTAT130, CTAT131 and CTAT132; or department permission

CTAA266 Forensics 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. Admission to the activity does not ensure credit.
Prereq: department permission

CTAA267 Theatre Practice 1 hr
Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: assistant directing and/or stage managing a faculty-directed production.

CTAA268 Interpretation 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. *Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)*
Prereq: CTAO210 or department permission

CTAA269 Radio Station WQBR 1 hr
Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. *Admission to the activity does not ensure credit.*
Prereq: CTAT130 and CTAT131; or department permission

CTAA277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAA365 Television Laboratory 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. *Admission to the activity does not ensure credit.*
Prereq: CTAT130, CTAT131 and CTAT132; or department permission

CTAA366 Forensics 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. *Admission to the activity does not ensure credit.*
Prereq: department permission

CTAA367 Theatre Practice 1 hr
Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: directing an experimental series production.

CTAA368 Interpretation 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. *Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)*
Prereq: CTAO210 or department permission

CTAA369 Radio Station WQBR 1 hr
Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. *Admission to the activity does not ensure credit.*
Prereq: CTAT130 and CTAT131; or department permission

CTAA377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAA465 Television Laboratory 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. *Admission to the activity does not ensure credit.*
Prereq: CTAT130, CTAT131 and CTAT132; or department permission

CTAA466 Forensics 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in one activity or in several. *Admission to the activity does not ensure credit.*
Prereq: department permission

CTAA467 Theatre Practice 1 hr
Students participating in specific positions with major responsibility in productions of the EMU Theatre, the department's instructional activity program in theatre arts, by prior permission of the department, may receive one hour of credit during a single semester. The specified positions and prerequisites are: additional experience in directing an experimental series production.

CTAA468 Interpretation 1 hr
Students who participate in co-instructional activities may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credit may be earned in one activity or in several activities. *Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)*
Prereq: CTAO210 or department permission

CTAA469 Radio Station WQBR 1 hr
Students who participate in co-instructional programs may, with the approval of the professor in charge and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. *Admission to the activity does not ensure credit.*
Prereq: CTAT130 and CTAT131; or department permission

CTAA477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAA497/498/499 Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Communication Courses (CTAC)

CTAC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAC224 Public Speaking 3 hrs
The characteristics of various types of speeches and speech situations and practice in the preparation and delivery of speeches for various occasions.
Prereq: CTAS124

CTAC225 Listening Behavior 3 hrs
The study of the behavior, processes and theory of human listening; practice in improving listening skills.

CTAC226 Nonverbal Communication 3 hrs
An examination of nonverbal and situational behaviors, relationships, objects and events surrounding speech communication acts.

CTAC227 Interpersonal Communication 3 hrs
Study and practice of the basic elements of interpersonal communication with emphasis on perception, meanings, attention, listening, feedback and communication barriers. Particular attention is given to improving interpersonal communication skills. This course may not substitute as the fundamentals of speech requirement in general education.

CTAC260/WGST260 Gender Communication 3 hrs
Exploration of the multifaceted ways communication, culture, and gender are interconnected and the influences of each. Critical analysis of gender communications "differences" as they are influenced by culture and our everyday communication.

CTAC274 Intercultural Communication 3 hrs
Analysis of processes and problems of communication as affected by national cultures; effects of differences in verbal and nonverbal communication, values, meaning, perception and thought.

CTAC275 Interracial/Interethnic Communication 3 hrs
The analysis of how ethnocentric attitudes toward perceived racial/ethnic minority group speakers/listeners influence interpersonal communication transactions.

CTAC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAC307 The Teaching of Speech 3 hrs
Emphasizes the analysis and construction of courses of study, evaluation of textbooks and

teaching materials, methods of directing co-curricular speech activities and demonstrations of teaching methods. Required of students majoring in communication and theatre arts in the junior or senior high school teaching curriculum. Does not count toward the major or minor. Not open to students on academic probation.
Prereq: CTAS124, CURR305 and admission to College of Education

CTAC350 Persuasion 3 hrs
The study of the basic elements inherent in persuasion; the analysis of representative persuasive speeches; practice in securing the acceptance of ideas through psychological appeals as well as logical reasoning.
Prereq: CTAS124

CTAC352 Communication in Negotiation 3 hrs
The course emphasizes the principles and practice of negotiation strategies and techniques in interpersonal and group interactions, grievance handling and collective bargaining.
Prereq: CTAS124 or department permission

CTAC354 Organizational Communication 3 hrs
The course examines the relationship between organizational structures and communication patterns with an emphasis on individual communication strategies appropriate in different organizational settings.
Prereq: CTAS124

CTAC356 Argumentation and Debate 3 hrs
Emphasizes the principles of logical reasoning and oral presentation of reasoned discourse in group situations. Exercise in debate and in general argumentative speaking.
Prereq: CTAS124

CTAC357 Interviewing as Communication 3 hrs
The principles and practices of the interview as they relate to communication elements; the interview process, structure, functions and techniques explored from both the perspective of the interviewer and the interviewee.
Prereq: CTAS124 or department permission

CTAC359 Small Group Communication 3 hrs
The course provides students with an understanding of theory and research in small group interaction. Practical dimensions of group communication are emphasized through group projects and exercises.
Prereq: CTAS124

CTAC370 Nonprofit Organizational Communication 3 hrs
A critical examination of the fundamental differences between communication in a for-profit organization and communication in a nonprofit organization. Students will learn and apply communication skills necessary to effectively and efficiently communicate in a nonprofit organization.

CTAC372 Assertive Communication 3 hrs
Individualized approach to study and training in effective assertive communication for social, conversational and career-oriented situations.
Prereq: CTAS124 or department permission

CTAC373 Family Communication 3 hrs
Descriptive and theoretical study of communication in families with emphasis on the influence of family communication on individuals.
Prereq: CTAS124 and CTAC227

CTAC376 Communication and Conflict Resolution 3 hrs
This course explores communication dynamics, processes and applications of conflict resolution procedures to the areas of interpersonal and organizational communication interactions. Emphasis will be on the theory and practice of the communication principles involved in these processes.

CTAC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAC387/388/389 Cooperative Education in Communication 1/2/3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office and department permission

CTAC440 Public Discourse Analysis 3 hrs
The course provides a critical study of public communication focusing on the role of advocates and their messages in an open society.
Prereq: CTAS124 and junior/senior standing

CTAC460 Theories of Speech Criticism 3 hrs
A study of the theoretical and critical works from various eras of western culture.
Prereq: CTAS124 and junior/senior standing

CTAC475 Research in Speech Communication 3 hrs
An examination of methods currently employed in speech communication, as well as a review of the many types of application now being made. Course includes analysis of speech communication behavior.
Prereq: CTAS124 and junior/senior standing

CTAC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAC485 Communication Theory 3 hrs
Communication Theory offers an analysis and application of classic and current theories in the communication discipline.
Prereq: CTAS124 and junior/senior standing

CTAC487/488/489 Internship in Communication 1/2/3 hrs
One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.
Prereq: 20 credit hours of concentration courses and department permission

CTAC497/498/499 Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Interpretation/Performance Studies Courses (CTAO)

CTAO102 Voice Development 1 hr
A laboratory for developing strength and control of the speaking voice through physical and tonal exercises and choral speaking. Two regularly scheduled hours each week and additional sessions as arranged.

CTAO177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAO202 Voice Development 1 hr
Advanced laboratory exercises and specialized projects: pronouncing foreign terms for professional speaking.
Prereq: department permission

CTAO205 Voice and Articulation 3 hrs
An introductory course for improving personal speaking habits. Emphasis is placed on regular practice to develop relaxed tone support, efficient articulation and vocal variety. Recording and listening laboratory hours arranged.

CTAO210 Interpretative Reading 3 hrs
The fundamentals of oral interpretation; developing poise and ease before an audience, a clear, forceful and flexible voice, and discrimination in interpreting thought to others. Selections will be prepared and presented in class.

CTAO277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTAO302 Voice Development 1 hr
Advanced laboratory exercises and specialized projects: energetic vocal skills for theatre/interpretation.
Prereq: department permission

CTAO310 Ensemble Interpretation 3 hrs
Ensemble Interpretation explores literary text from the group perspective. The emphasis is on staging literature through multiple bodies and voices utilizing presentational modes of performance, including reader's theatre and chamber theatre.
Prereq: CTAO210 Interpretative Reading or departmental permission

CTAO311 Interpretation of Prose 3 hrs
The application of the fundamentals of oral interpretation to the reading of prose with emphasis on the short story and excerpts from longer works of fiction. Special attention given to problems involved in the interpretation of prose.

CTAO314 Interpretation of Drama 3 hrs
Specific problems involved in interpreting dramatic literature. Emphasis placed on selection of materials, cutting and arrangement of materials, dialogue, characterization and character placement. Students will work individually and collectively in interpreting scenes from plays.

CTAO377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAO387/388/389 Cooperative Education in Oral Interpretation 1/2/3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office and department permission

CTAO402 Voice Development 1 hr
Advanced laboratory exercises and specialized projects: skills, theory and individualized projects.

CTAO404 Dynamic Speaking Skills 3 hrs
Projects emphasizing intensive application of voice and articulation theory and professional diction standards for actors, broadcasters, educators, forensic speakers, interpreters and other professional communicators. Laboratory hours arranged.
Prereq: three courses in the department including either CTAO102 or CTAO205; or take CTAO402 concurrently

CTAO405 Voice and Dialects 3 hrs
Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects.
Prereq: CTAO205 or department permission

CTAO410 Oral Interpretation of Shakespeare 3 hrs
Specific problems involved in the oral interpretation of Shakespeare. Emphasis placed on language style and characterization problems. Students work individually and collectively in orally interpreting selections from Shakespeare's works.
Prereq: CTAO210, or CTAR158, or CTAO210, or departmental permission

CTAO411 Advanced Problems in Interpretation 3 hrs
The presentation of programs of some length and difficulty in prose, poetry and drama. Emphasis on programming, styles of interpretation, choral reading and experimental work. A public program will be presented by the class.
Prereq: six hours of oral interpretation or department permission

CTAO412 Oral Interpretation of Poetry 3 hrs
The application of the principles of oral interpretation to the reading of poetry, with emphasis on modern and contemporary poetry.
Prereq: CTAO210

CTAO415 Performing Oral Narratives 3 hrs
This course explores the nature of oral narratives, both personal and historical, and the development of skills necessary for their collection. The focus is on primary sources, including interviewing, transcribing, scripting and staging for performance, as well as ethical considerations.
Prereq: Three credit hours in CTAO (interpretation/performance studies) or department permission

CTAO477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAO487/488/489 Internship in Interpretation 1/2/3 hrs
One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.
Prereq: 20 credit hours of concentration courses and department permission

CTAO497/498/499 Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Theatre and Educational Drama Courses (CTAR)

CTAR106 Introduction to the Performing Arts 3 hrs
A survey of the arts of dance, theatre and music, developing an understanding and appreciation of representative works in the three fields. The place of these arts in contemporary society and their contribution to a richer life receive special emphasis. Attendance required at specific on-campus performances. Not open to those with credit in MUSC106/DANC106.

CTAR150 Introduction to Theatre 3 hrs
A lecture-demonstration course with the purpose of fostering appreciation of theatre through an understanding of its production components, its forms

and styles, and its historical development. Attendance required at select EMU theatre productions. Required of theatre arts majors and minors.

CTAR151 African American Theatre: An Introduction 3 hrs
An introductory survey of the roots, purposes and contemporary manifestations of theatre and drama reflecting the African American experience. Emphasis will be placed on the reading, analysis and discussion of representative African American plays.

CTAR152 Technical Theatre: Scenery and Lighting 2 hrs
The comprehensive study and application of design fundamentals and basic technology for theatrical scenery and lighting.

CTAR153 Technical Theatre: Costume and Makeup 2 hrs
The comprehensive study and application of design fundamentals and basic technology for theatrical costuming and makeup.

CTAR155 Producing Theatre 3 hrs
A comprehensive introduction to theatrical production organization: business management, direction and technical production. Laboratory hours by appointment.
Prereq: CTAR150 strongly recommended for majors and minors

CTAR157 Beginning Acting 3 hrs
This course is designed for nontheatre majors desiring basic knowledge and practice of acting skills as related to the stage. Nonmajors will gain experience in self-awareness, relationships, character analysis, improvisation, scene study and acting exercises. Attention will be given to overcoming stage fright. For nontheatre majors only.

CTAR158 Fundamentals of Acting 3 hrs
A study of the fundamental theories and techniques of acting. Major emphasis on theatre acting, but consideration given to radio and television acting. Laboratory hours by arrangement.

CTAR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAR222 Drama and Play in Human Experience 3 hrs
A study of dramatic experience as intrinsic in human development. An introduction to spontaneous dramatic games and exercises as a way of sharpening imagination, deepening interpersonal relations and strengthening individual identity. Integration of such experience in learning and growth is emphasized.

CTAR251 African American Theatre: Creative Problems 3 hrs
A practical consideration of those creative aspects of the theatre production particular to African American theatre. Emphasis will be placed on the presentation of scenes from African American theatre.

CTAR252 Stagecraft 3 hrs
A study and application of the technical elements of play production with emphasis on stage mechanics, construction and scene painting. Laboratory hours will be arranged in order to ensure adequate practical experience in the scenic arts and crafts.
Prereq: CTAR152; CTAR155 strongly recommended for department majors and minors

CTAR254 Stage Makeup 1 hr
The theory and techniques of theatrical makeup. Laboratory hours to be arranged.

CTAR258 Movement for Actors 3 hrs
This is a performance-oriented survey of techniques exploring styles, history and theory of movement for actors. The class will include physical preparation, preparation of production materials, scripted movement design and actual performance.

CTAR277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAR322 Theatre for the Young 3 hrs
An introductory study of the development, philosophy and techniques of theatre for the young.

CTAR323 Improvising and Role-Play 3 hrs
Exploration of spontaneous dramatic play through intensive exercise and dramatic games meant to generate greater individual freedom and self-discipline, as well as to expand resources and techniques for teaching and directing.

CTAR324 Oral Interpretation of Literature for the Young 3 hrs
Selection and evaluation of literature for oral interpretation with and for young people. Focus is on the use of narrative prose and folktales.

CTAR326 Drama/Theatre for Persons with Disabilities 2 hrs
Study of principles, theories and practices of developmental drama/theatre as related to physically challenged persons. Application to educational, recreational and institutional settings stressed.

CTAR327 Plays for the Young 3 hrs
A study of dramatic literature for the young from developmental and artistic viewpoints in the total educational experience of children and adolescents.

CTAR329 Performing Theatre for the Young 3 hrs
Students will gain practical experience in play development and performance for young audiences. A theatre production designed for touring will be performed at area schools and other community sites.

CTAR351 Scene Design 3 hrs
The history of design in terms of stage scenery; an investigation of current trends, techniques and media of scene design and the practical execution of models and sketches by the student.
Prereq: CTAR252, CTAR155 or department permission

CTAR355 Play Direction 3 hrs
An intensive study of the process of directing plays. Whenever possible, students in the course will direct a one-act play for public presentation. Laboratory hours by arrangement.
Prereq: CTAR155, CTAA167 or department permission

CTAR358 Characterization 3 hrs
The creation of character and characterization by the actor. Analysis, development and performance of roles studied in depth.
Prereq: CTAR157 or CTAR158

CTAR360 Dramatic Composition 3 hrs
An examination of the elements of dramatic structure through the analysis and composition of works of varying scope. Emphasis on adult plays for the stage; the special problems of drama for children and for the various broadcast media also considered.
Prereq: department permission

CTAR361 Dramatic Writing 2 hrs
Intensive concentration on the writing of a significant example of adult or children's drama for the stage or the broadcast media.
Prereq: department permission

CTAR362 Stage Lighting 2 hrs
Stage lighting; historical development, basic electrical theory, switchboards and lighting instruments, color theory, principles and practices in stage lighting. Laboratory hours to be arranged.
Prereq: CTAR252, CTAR155 or department permission

CTAR363 Stage Costume: History and Theory 3 hrs
A survey of the principles and practices of stage costuming from antiquity to the present.
Prereq: department permission

CTAR364 Stage Costume: Design and Construction 3 hrs
The fundamentals of designing theatrical costumes and a study of specific construction problems found in the making of period costumes.
Prereq: department permission

CTAR377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAR387/388/389 Cooperative Education in Arts Management 1/2/3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office and department permission

CTAR429 History and Theory of Developmental Drama/Theatre 3 hrs
An introductory study of the history and theory of developmental drama/theatre. Students will become familiar with the current thinking of major practitioners in the field of developmental drama/

theatre and consider the current research that involves the development of new or the validation of existing knowledge relating to history and/or theory of developmental drama/theatre.

CTAR450 History of the Theatre to 1642 3 hrs

A history of the physical theatre and the written drama from antiquity to 1642. Emphasis on theatre architecture and stagecraft, including scenery, costumes and lighting.
Prereq: junior standing or department permission

CTAR451 History of the Theatre: 1642 to the Present 3 hrs

History of the physical theatre and the written drama in the western world from the Commonwealth period in England to the present.
Prereq: junior standing or department permission

CTAR452 Arts Management 3 hrs

A study of managerial practices of arts organizations and agencies. Emphasis on facility planning, personnel, income sources, promotion, budget development and management.

CTAR453 Marketing the Arts 3 hrs

Relates traditional marketing practices to arts administration and provides experience in applying marketing skills to the arts. The study of marketing in the arts and information relating to past market analysis; research and preparation of a specific market plan for an arts organization; presentation of market plan.

CTAR454 Law, Public Policy and the Arts 3 hrs

Examination of the impact of public policy and law on arts organizations and the individual artist. Particular attention is paid to tax policy, copyright, arts advocacy and contract law.
Prereq: 12 hours in arts management or department permission

CTAR457 Audition 2 hrs

Intensive study in the preparation of audition material for a wide range of stylistic demands that exist within the professional theatre.
Prereq: CTAR157, CTAR158, CTAR358, CTAR461 or CTAR464

CTAR458 Acting/Directing/Production Intensive I 3 hrs

This course is the collaborative study and presentation of post-1850 theatrical styles and genres for actor, director and designer. Students work in production teams to develop and present simple solutions.
Prereq: CTAR355 and 12 hours in theatre or department permission

CTAR459 Acting/Directing/Production Intensive 2 hrs

This course is the collaborative study and presentation of pre-1850 theatrical styles and genres for actor, director and designer. Students work in production teams to develop and present multiple solutions.
Prereq: CTAR355 and 12 hours in theatre or department permission

CTAR461 Musical Theatre Acting 2 hrs

Analysis and application of the performance skills needed by the actor/singer in musical theatre.
Prereq: nine hours in theatre arts or department permission

CTAR462 Directors on Directing 2 hrs

Study of select, noted stage directors past and present.
Prereq: CTAR355 and nine hours in theatre arts or department permission

CTAR463 The American Musical Stage 3 hrs

Character, production, style in the American musical including concept musicals, operetta, golden age, rock, and musical revues. Historical survey and production workshop format.
Prereq: junior standing or above

CTAR464 Style for the Actor 3 hrs

This course will address the challenge of matching the actor's personal methods with a wide range of stylistic demands that exist in the theatrical repertory. The student will discover that acting means translating the text into a series of actions and that physical actions take on a particular shape or style in accordance with the given circumstances of the text.
Prereq: CTAR158 or CTAR157; open to senior, junior and graduate students with permission

CTAR477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAR487/488/489 Internship in Arts Management 1/2/3 hrs

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities.
Prereq: 20 credit hours of concentration courses and department permission

CTAR496 Senior Seminar 2 hrs

A capstone course for theatre majors. A comprehensive and unified study of all areas of theatre. Combining knowledge and skills with preparation for professional careers and/or graduate study.
Prereq: open only to department seniors or by department permission

CTAR497/498/499 Independent Study 1/2/3 hrs

Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Fundamentals of Speech Courses (CTAS)

CTAS124 Fundamentals of Speech 3 hrs

More intensive theory and practice in the principles of effective speech composition.

Telecommunications and Film Courses (CTAT)

CTAT130 Introduction to Electronic Media 3 hrs

An introduction to electronic media systems in the United States. Emphasis on development of electronic media industries including radio, television, cable and the Internet. Programming, technologies, government regulation, financial support and social effects are covered.

CTAT131 Introduction to Audio Production and Direction 2 hrs

For majors and minors only. This course emphasizes basic skills, concepts and strategies for audio production projects including radio ads, sound pictures, air checks and actualities. This is a required course for all majors and minors and a prerequisite to other production courses.

CTAT132 Introduction to Video Production and Direction 2 hrs

For majors and minors only. Class meets three times a week and emphasizes studio television production. Students learn the process of writing, producing and directing of commercials, news and talk shows in a multiple camera studio setting.
Prereq: CTAT131

CTAT141 Audio and Video Production for Nonmajors 3 hrs

For non-majors and nonminors. A study and application of the technical elements of audio and video production with an emphasis on the operation of studio equipment. In addition to the hands-on participation, emphasis will be placed on theory, writing, and pre-production.

CTAT145 Introduction to Film Appreciation 3 hrs

An introduction to understanding the moving image as a medium of artistic expression and persuasion. The course will consider the principal components of film/video language including photography, writing, performances, editing, mise-en-scène and major classification systems such as genres and auteurism. It will include an historical overview of the development of film/video industries, major theoretical approaches, and an analysis of the moving image's effects on audiences.

CTAT177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

CTAT231 Audio Recording Techniques 3 hrs

An introduction to the practical problems of recording music ensembles from soloists to symphony orchestras. A professional audio engineer will supervise on-site recording sessions and all postproduction work. Two regular lecture hours and two hours of laboratory per week. Fieldwork projects arranged. Laboratory fee.
Prereq: CTAT130 and CTAT131; or department permission

- CTAT236 History and Criticism of Radio and Television** 3 hrs
An historical and critical survey of radio and television entertainment and public affairs programming with an emphasis on how the networks' offerings were received by a select number of social and cultural critics of the two media.
Prereq: CTAT130
- CTAT241 Radio-Television-Film Announcing** 3 hrs
A study of the various types of radio and television nondramatic speaking such as news, commercials, interviews and documentaries. Practice and evaluation of announcing types and styles.
- CTAT245 A Survey of American Cinema** 3 hrs
This course is a chronological survey of the development of American cinema with an emphasis on the roles played by technological innovations, corporate development, government intervention and the emergence of a dominant mode of film production practice. Key films by important directors from the entire period will be screened and discussed.
Prereq: CTAT145 or department permission
- CTAT277/278/279 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT331 Intermediate Radio Production and direction** 3 hrs
This course focuses on the production of nondramatic radio programming including promotional spots, advertisements, documentaries and air checks in a variety of formats. Emphasis is on advanced production skills and developing broader knowledge of the industry.
Prereq: CTAT130, CTAT131 and CTAT132 or CTAT141; or department permission
- CTAT332 Intermediate Television Production and Direction** 3 hrs
The fundamentals of nondramatic ENG single camera and studio style production are explored as well as basic electronic video editing. More advanced production techniques and theory are applied in both studio and field settings.
Prereq: CTAT130, CTAT131 and CTAT132; or department permission
- CTAT333 Fundamentals of Electronic Moviemaking** 3 hrs
An introduction to the principles of digital video production. Course offers theory and practice of digital video continuity, master sequencing, narrative and non-narrative editing. Two short video projects will be required.
Prereq: CTAT130, CTAT131 and CTAT132; or department permission
- CTAT334 Radio-Television News** 3 hrs
A study of the principles, techniques and forms of broadcast journalism. Emphasis is placed on broadcast news writing, editing, and delivery.
Prereq: JRNL215 for journalism majors/minors
- CTAT335 Studies in Film** 3 hrs
Students will examine non-Hollywood films including European, Asian and Third World theatrical film or documentary, animated and experimental films or film music. The topics will alternate over terms to allow for an in-depth approach. *May be taken twice provided different topics are studied.*
Prereq: CTAT145
- CTAT336 Studies in Electronic Media** 3 hrs
In this course, students will be able to study a variety of different electronic media topics including media literacy, international broadcasting and electronic media regulation. Other topics may be introduced. *May be taken twice provided different topics are studied.*
Prereq: CTAT130 or department permission
- CTAT341 Radio-Television-Film Dramatic Performance** 3 hrs
A study of types and styles of dramatic speaking for radio, television and film. Practice in the basic techniques of acting for the three media.
Prereq: CTAT241, CTAR158 or department permission
- CTAT344 Continuity Writing for Electronic Media** 3 hrs
A study of the nondramatic writing forms for electronic media, including commercials, public service announcements, interview programs and documentaries.
Prereq: department permission
- CTAT345 American Film Genres** 3 hrs
This course examines key American film genres, both past and present, identifies their unique narrative and stylistic properties and shows their important economic, social, psychological and symbolic functions. Genres to be considered include westerns, musicals, horror films, science fiction films, the "woman's" film, detective films, African American films and sequels.
Prereq: CTAT145 or department permission
- CTAT377/378/379 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT387/388/389 Cooperative Education in Radio-TV-Film** 1/2/3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine hours in concentration, approval by Cooperative Education Office and department permission
- CTAT431 Advanced Radio Production and Direction** 3 hrs
A continuation of CTAT331. Advanced theory and practical experience in production of longer, more complex dramatic and nondramatic material for radio.
Prereq: CTAT130 and CTAT132
- CTAT432 Advanced Television Production and Direction** 3 hrs
A continuation of CTAT332. Principles, practices and techniques of directing and producing dramatic material for television. Major television formats discussed and analyzed. Practical experience in depth provided for each student. Laboratory fee.
Prereq: CTAT332 or department permission
- CTAT433 Advanced Electronic Moviemaking** 3 hrs
Course will guide students through intensive use of video editing software. The theory and practice of narrative and non-narrative editing techniques will be reinforced through a series of short digital video projects.
Prereq: CTAT333 and department permission
- CTAT444 Dramatic Scriptwriting for Visual Media** 3 hrs
This course introduces the fundamentals, both form and content, of writing fiction for the screen. Principles and conventions of episodic drama, situation comedy, made-for-TV movies, and full-length films will be covered. Models of excellence will be viewed and discussed. Students will be assigned several writing exercises and will write an original 30-minute script.
Prereq: ENGL121
- CTAT445 Film Theory and Criticism** 3 hrs
An intensive study of the key theories of film structure, historical development and sociological function. Emphasis upon theories of editing, auteur criticism, genres and textual analysis.
Prereq: CTAT145
- CTAT446 Contemporary Problems in Electronic Media** 3 hrs
A study of contemporary issues and problems affecting the electronic media industries, including cultural influences, programming, new technologies, government regulation and research.
Prereq: CTAT130
- CTAT447 Radio-Television Station Management** 3 hrs
Study of station management in the areas of advertising, programming, personnel, applied research and public relations.
Prereq: CTAT130
- CTAT477/478/479 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
- CTAT487/488/489 Internship in Radio-TV-Film** 1/2/3 hrs
One semester of practical, on-the-job work experience and training (10 hours per week minimum) at select on-campus or off-campus facilities.
Prereq: 20 hours of concentration courses and department permission

CTAT497/498/499
Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Career, Technical and Workforce Education Courses (CTWE)

CTWE177/178/179
Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTWE277/278/279
Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTWE285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

CTWE377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTWE387 Co-operative Education 3 hrs

CTWE477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CTWE487 Co-operative Education 3 hrs

CTWE497/498/499
Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Curriculum Courses (CURR)

CURR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CURR214 The Developing Child in ECE 3 hrs
Developmental patterns of children in various settings. Physical, mental, social and emotional components of growth through the first five stages of the family life cycle, with emphasis on the child from two to eight years. Impact of the family resources, attitudes and values on young children. Concurrent registration in CURR215 required.
Prereq: PSY101 and sophomore standing

CURR215 The Developing Professional in ECE 2 hrs
An orientation to the profession of early childhood education. Students will learn communication skills, how to interpret child and adult behaviors, and how to build relationships. Students will begin to apply effective teaching practices and to use a reflective-inquiry approach to understand child development theories as the bases for early childhood programs. Concurrent registration in CURR214 required. Includes three-hours-per-week practicum experience.
Prereq: PSY101 and sophomore standing

CURR277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CURR304 Curriculum and Methods: Elementary 3 hrs
The concept of curriculum and its relationship to differing philosophies of education and styles of teaching. The instructional process and multiple teaching strategies examined and applied through lesson planning and demonstration. Social studies content used in lesson planning by students seeking elementary certification. Classroom management principles and techniques considered in the light of a curriculum and instruction perspective. Includes a planned practicum experience in public schools in addition to the regularly scheduled hours.
Prereq: EDPS322 or EDPS325; admission to the teacher education program

CURR305 Curriculum and Methods: Secondary 3 hrs
The concept of curriculum and its relationship to differing philosophies of education and styles of teaching. The instructional process and multiple teaching strategies examined and applied through lesson planning and demonstration. Classroom management principles and techniques considered in the light of a curriculum and instruction perspective. Includes a planned practicum experi-

ence in public schools in addition to the regularly scheduled hours.
Prereq: EDPS322 or EDPS325; admission to the teacher education program

CURR314 Infants and Toddlers in ECE 3 hrs
This course examines the growth and development of infants and toddlers (conception to 36 months), and the characteristics of high quality child care programs for this age group. The importance of respectful, responsive and interactive care giving, and creating safe, nurturing environments and experiences is emphasized.
Prereq: CURR214 and CURR215

CURR377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CURR477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

CURR486/488/489 Internship in Teacher Education 1/2/3 hrs
Directed experience involving a field placement in curriculum.
Prereq: department permission

CURR497/498/499
Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Dance Courses (DANC)

DANC100 Ballet I 2 hrs
Introduces the theory and technique of classical ballet at the beginning level for the non-major student. Develops and maintains classical ballet technique at the beginning level and fosters understanding of ballet as an historical and contemporary art form.

DANC101 Jazz I 2 hrs
Introduces the theory and technique of jazz dance at the beginning level for the nonmajor student. Develops and maintains jazz style and technique for the student at the beginning level and fosters a critical understanding of jazz as an historical and contemporary art form.

DANC102 Modern Dance Fundamentals 3 hrs
Introduces the theory and technique of modern dance at the beginning level for the nonmajor student. Designed to give students introductory experiences in modern dance as a contemporary

performing art and fosters the critical understanding of modern dance as an historical and contemporary art form.

DANC103 Tap I 2 hrs
Introduces the theory and technique of tap at the beginning level for the nonmajor student. Will develop and maintain tap technique and foster critical understanding of tap as an historical and contemporary art form.

DANC104 Hip-Hop Dance 2 hrs
An introduction to the theory and technique of hip-hop dance at the beginning level for the non-dance major student. Develops hip-hop technique and fosters understanding of hip-hop as a contemporary art form. Taught as a lecture/laboratory course.

DANC105 African Dance 2 hrs
The theory and technique of beginning African dance for the nonmajor dance student. Introduces students to African culture through traditional dance and music. Taught as a lecture/laboratory course.

DANC106 Introduction to the Performing Arts 3 hrs
A survey of the arts of dance, theatre and music; developing an understanding and appreciation of representative works in the three fields. The place of these arts in contemporary society and their contribution to a richer life. Attendance required at specific on-campus performances. This is a team taught course.

DANC107 Rhythmic Analysis and Dance Accompaniment 3 hrs
The study of rhythm, sound and music literature as related to the teaching and performing of dance. Assigned listening experiences and designated explorations of pertinent elements of music.

DANC108 Classical Ballet Technique I for Dance Majors/Minors 3 hrs
A lecture/laboratory class that introduces the theory and technique of beginning/intermediate classical ballet and fosters critical understanding of ballet as an art form at the dance major/minor level.

DANC109 Classical Ballet Technique II for Dance Majors/Minors 3 hrs
A lecture/laboratory class that introduces the theory and technique of intermediate classical ballet and fosters critical understanding of ballet as an art form at the dance major/minor level.
Prereq: Dance major/minor, DANC108 or equivalent and/or permission

DANC110 Modern Dance I for Dance Majors/Minors 3 hrs
A lecture/laboratory class that introduces the theory and technique of modern dance and fosters critical understanding of modern as an art form at the dance major/minor level.

DANC111 Modern Dance II for Dance Majors/Minors 3 hrs
A lecture/laboratory class that develops the theory and technique of modern dance and fosters criti-

cal understanding of modern as an art form at the dance major/minor level.

Prereq: Dance major/minor; DANC110 or equivalent and/or permission

DANC112 Pilates Mat Exercises 2 hrs
The theory and technique of beginning level Pilates technique for both the dance major/minor and nonmajor student. This course is designed to familiarize students with the technical, conceptual and historical foundations of Pilates, as applied to Pilates techniques. Class is conducted in a lecture/laboratory format.

DANC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DANC200 Ballet II 2 hrs
The continuance of beginning/intermediate ballet technique and theory for the nonmajor student.
Prereq: DANC100 and/or instructor permission

DANC201 Jazz II 2 hrs
The continuance of beginning/intermediate Jazz theory and technique for the nonmajor student.
Prereq: DANC101 and/or instructor permission

DANC202 Modern Dance II 2 hrs
The continuance of beginning/intermediate modern theory and technique for the nonmajor student.
Prereq: DANC102 and/or instructor permission

DANC208 Classical Ballet Technique III 3 hrs
Theory and technique of intermediate classical ballet.
Prereq: Dance major/minor, DANC109 or equivalent and/or permission

DANC209 Classical Ballet Technique IV 3 hrs
A continuation of the theory and technique of advanced and intermediate classical ballet.
Prereq: Dance major/minor, DANC208 or equivalent and/or permission

DANC210 Modern Dance Technique III 3 hrs
A continuation of DANC111. The theory and technique of intermediate modern dance.
Prereq: Dance major/minor; DANC111 or equivalent, and/or department permission.

DANC211 Modern Dance Technique IV 3 hrs
A continuation of DANC210. The theory and technique of modern dance.
Prereq: Dance major/minor; DANC210 or equivalent, and/or department permission

DANC245 Elements of Dance Composition 3 hrs
An introduction to the fundamentals of choreography, including the use of improvisation and the

development of compositions. Exploration and manipulation of the elements of dance.

Prereq: DANC107, DANC111 or department permission.

DANC255 Dance Production 3 hrs
A study of the fundamentals of dance production including publicity, planning and organization, set design and construction, stage lighting, sound effects, recording, costuming and stage makeup. Laboratory projects coordinated with dance productions.

DANC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DANC320 Dance Workshop 1 hr
The Dance Workshop is proposed as an integral part of the dance curriculum because it synthesizes experiences from dance theory, technique and composition in the act of performance. As a practicum in rehearsal and performance, workshops are considered essential to the balance of the total curriculum. *May be repeated for credit.*

DANC331 Service Teaching—Ballet 1 hr
Service teaching is designed to provide practical experience for students to assist in dance technique classes in the dance program. This experience should be under the direction of a qualified instructor and must be approved prior to registering.

DANC333 Service Teaching—Modern Dance 1 hr
Service teaching is designed to provide practical experience for students to assist in dance technique classes in the dance program. This experience should be under the direction of a qualified instructor and must be approved prior to registering.

DANC350 History of Dance 3 hrs
This course is designed to provide students with an overview of dance history, through the critical examination of selected dances. Intended for dance majors, minors the course includes lectures, discussions, collaborative interaction and the learning of dances, through a variety of resources including teacher instruction, videos, music and research
Prereq: junior standing or departmental permission.

DANC354 Methods and Materials in Teaching of Dance 3 hrs
A study of the methods and the use of materials in the teaching of dance idioms K-12. Modes and models that facilitate learning, lesson planning and vertical progression. Experiences in teaching and field observations.

DANC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DANC422 Dance Workshop 2 hr
The Dance Workshop is proposed as an integral part of the dance curriculum because it synthesizes experiences from dance theory, technique and composition in the act of performance. As a practicum in rehearsal and performance, workshops are considered essential to the balance of the total curriculum. *May be repeated for credit.*

DANC450 Advanced Dance Composition 4 hrs
An extension of the principles explored in DANC245 with emphasis on structural development and experiences in the use of thematic materials, selected dance idioms, multimedia resources and group choreography. A choreographic work will be required of students.
Prereq: DANC245

DANC455 Seminar in Dance 2 hrs
Current literature and dance research, trends in dance education and developments in contemporary concert dance. Lecture-discussion.
Prereq: DANC250, DANC450 or department permission

DANC456 Creative Dance for Children 2 hrs
Goals, concepts, materials and experiences to teach children's creative dance.

DANC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DANC497/498/499 Directed Study 1/2/3 hrs
An opportunity for directed study in areas not provided in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above, and who have completed the appropriate background courses.
Prereq: department permission

Decision Science Courses (DS)

DS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DS265 Business Statistics I 3 hrs
Concepts of statistics and applications to business decisions. Elements of probability, random samples, descriptive statistics, sampling distributions,

point and interval estimation, hypothesis testing, chi-square analysis and regression and correlation analysis.
Prereq: IS215 and MATH118 or MATH120

DS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DS317 System Simulation 3 hrs
Computer-based simulation techniques for business analysis and decision making. Random number and process generators, system simulation models and specialized computer simulation languages. Simulation of discrete time systems and the GPSS language.
Prereq: IS215 and DS265

DS367 Business Statistics II 3 hrs
A continuation of the statistical methodology developed in Business Statistics I. Topics include two-sample interval estimation and hypothesis tests, inference about the population variance and simple and multiple regressions.
Prereq: DS265

DS377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DS387 Cooperative Education in Decision Science 3 hrs
Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines. *Offered on a credit/no-credit basis for general elective credit only. Admittance by application only.*
Prereq: completion of three hours in decision science systems area and department permission

DS465 Applied Linear Statistical Models 3 hrs
An introduction to linear models with an emphasis on business applications. Topics include multiple linear regression models, analysis of variance and multivariate data analysis. Computer packages will be used.
Prereq: DS265

DS477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

DS487 Cooperative Education in Decision Science 3 hrs
Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines. *Offered on a credit/no-credit basis for general elective credit only. Admittance by application only.*
Prereq: DS387; department permission

DS497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem or group of problems in decision science.
Prereq: department permission

Dietetics Courses (DTC)

DTC101 Fundamentals of Personal Nutrition 3 hrs
How much do you know about nutrition and its impact on health, disease and lifestyle? This course will help you develop skills to critically evaluate the role of nutrition in a healthy lifestyle by providing an overview of nutrients, their functions, relationship to health and disease and explain how culture and society influences one's nutritional status.

DTC108 Careers in Nutrition and Dietetics 2 hrs
Orientation to Dietetics profession by exploring its roles in the health care system, examining the different facets and specializations of the profession and investigating future trends.
Course previously listed as DTC301, therefore student could not earn credit for both DTC108 and DTC301.

DTC155 Fundamentals of Healthy Lifestyles 2 hrs
Current nutrition strategies to promote fitness and a healthy lifestyle.

DTC177/178/179 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

DTC201 Nutrition Perspectives 3 hrs
Application of nutrition concepts and recommendations for health maintenance. *Not open to students who take DTC202, DTC203 or DTC204.*

DTC202 Principles of Human Nutrition 3 hrs
Study of functions, sources, digestion, absorption and metabolism of nutrients. Introduction to nutrient needs during physiological stages of the life cycle. *Open to dietetics-intent majors. Not open to students who take DTC201, DTC203 or DTC204.*
Prereq: CHEM121/122

DTC203 Nutrition for Health Professionals 3 hrs
Study of the functions, digestion, absorption and metabolism of nutrients in health and wellness. Application of principles of medical nutrition therapy in the provision of care to clients in acute/long-term/and ambulatory care settings.
Prereq: CHEM120; Coreq: ZOOL202

DTC204 Sports Nutrition 3 hrs
Study of sources, functions, digestion, absorption and metabolism of nutrients. Emphasis on diet in athletic training and exercise science. *Open only to sports medicine majors.*
Prereq: CHEM120

DTC251 Experimental Foods 4 hrs
Nature and reactions of food explained in terms of chemical composition, microbial flora and manipulative practices.
Prereq: CHEM121/122 and MICR328

DTC277/278/279 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

DTC302 Nutrient Metabolism 3 hrs
Biochemical and metabolic functions of nutrients with emphasis on cellular reactions and their relationship to health and disease.
Prereq: DTC202 and ZOO326

DTC330 Nutrition Therapy I 3 hrs
Principles of interviewing and counseling techniques, use of medical terminology, components of nutritional screening and assessment; includes topics in medical nutrition therapy relevant to hypermetabolism, gastrointestinal and endocrine systems disorders. *Open only to dietetics majors and nutrition minors.*
Prereq: DTC202 and CHEM351

DTC331 Nutrition Therapy I Experience 2 hrs
Supervised practice experience in the medical nutrition therapy professional environment. Emphasis on nutrition assessment utilizing a review of systems approach. *Only open to Dietetics majors.*
Prereq: DTC202, CHEM351, ZOO326

DTC350 Food Systems Management I 3 hrs
Introduction to food systems management with emphasis on sanitation safety, equipment selection and operation, food purchasing, receiving and storage, and personnel management. *Open only to dietetics majors.*
Prereq: DTC251

DTC351 Food Systems Management I Experience 2 hrs
Application of basic components of an operating quantity food service facility. Supervised practice experiences.
Prereq: DTC251;
Coreq: DTC350

DTC358 Food and Culture 3 hrs
Food habits are best understood within the context of culture. This course will explore factors that influence food habits including religion, culture and society, traditional health benefits and intercultural communication.

DTC370 Nutrition Therapy II 3 hrs
Development, implementation, and evaluation of nutrition care plans for individuals requiring medical nutrition therapy for cardiovascular disease, liver disease, renal disorders and diabetes. (TPN). *Open only to dietetics majors.*
Prereq: DTC330

DTC371 Nutrition Therapy II Experience 4 hrs
Supervised clinical and ambulatory site based practice experiences in the clinical nutrition professional environment. *Open only to dietetics majors.*
Prereq: DTC330 and DTC331;
Coreq: DTC370

DTC372 Nutrition of the Life Cycle 3 hrs
Emphasis on nutrient needs and influencing factors for each of the physiological stages of the life cycle.
Prereq: DTC202, DTC203 or DTC204

DTC375 Complementary and Alternative Medicine 3 hrs
This course provides an overview of current strategies to integrate fundamental concepts of nutrition, and health promotion using complementary therapies, phytochemicals, nutraceuticals and herbology to establish a healthy lifestyle.
Prereq: DTC202, DTC203 or DTC204

DTC377/378/379 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

DTC430 Nutrition Therapy III 3 hrs
Examination of federal, state, and local nutrition programs; conduct needs assessment in community and design appropriate education program. *Open only to dietetics majors and nutrition minors.*
Prereq: DTC202

DTC431 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. *Open only to dietetics majors.*
Coreq: DTC430

DTC435 Seminar in Dietetics 2 hrs
Analysis and application of research topics and techniques as they apply to the field of dietetics.
Prereq: senior dietetics student

DTC450 Food Systems Management II 1 hr
Administrative functions of food service departments such as assessing, planning, decision making, evaluating and training.
Prereq: DTC350 and DTC351

DTC451 Food Systems Management II Experience 4 hrs
Students will participate in supervised practice experiences that include documentation of competencies related to advanced food systems management. Students plan and implement a theme meal, conduct employee training and a quality improvement project. *Only open to dietetics majors.*
Prereq: DTC350 and DTC351;
Coreq: DTC450

DTC459 Development of Entrepreneurial Dietitian 3 hrs
This course emphasizes the role of the nutrition entrepreneur in the conceptualization, planning and marketing for a start-up enterprise or private

practice. The focus will be on developing a business plan for a new venture and will consider legal and ethical issues in nutrition.
Prereq: DTC108, DTC202 and an intent to pursue Dietetics or acceptance to the Dietetics program

DTC470 Nutrition Therapy IV 2 hr
Formulation, implementation, and evaluation of nutritional care plans for individuals requiring medical nutrition therapy focusing on abnormal nutrient metabolism, trauma and critical illness, examination of enteral and parenteral nutrition regimens, fluid electrolyte balance and acid-base management. *Open only to dietetics majors.*
Prereq: DTC430

DTC471 Nutrition Therapy IV Experience 4 hrs
Supervised practice experience in the medical nutrition therapy professional environment. Focus is on complicated disease states and the management of enteral and parenteral nutrition regimens. *Open only to dietetics majors.*
Prereq: DTC431;
Coreq: DTC470

DTC477/478/479 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

DTC497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Early Childhood Education Courses (ECE)

ECE214 The Developing Child 3 hrs
Developmental patterns of children in various settings. Physical, mental, social and emotional components of growth through the first five stages of the family life cycle, with emphasis on the child from two to eight years. Impact of the family resources, attitudes and values on young children. Concurrent registration in ECE215 required.
Prereq: sophomore standing

ECE215 The Developing Professional 2 hrs
An orientation to the profession of early childhood education. Students will learn communication skills, how to interpret child and adult behaviors, and how to build relationships. Students will begin to apply effective teaching practices and to use a reflective-inquiry approach to understand child development theories as the bases for early childhood programs. Concurrent registration in ECE214 required. Includes three-hours-per-week practicum experience.
Prereq: sophomore standing

ECE302 Methods of Integrating Curriculum and Resources in ECE 3 hrs
To help students design and implement developmentally appropriate curricula and programs for children prekindergarten through third grade. An inquiry approach will be used to assist the student in broadening the scope of curriculum to provide for individual interests and needs.
Prereq: EDPS322 or EDPS325; concurrent registration in ECE303 and admission to the teacher education program

ECE303 Implementing the Curriculum in ECE 2 hrs
This course is divided into two parts, the first being a one-and-a-half hour class each week. The content of the class will focus on implementing a developmentally appropriate curriculum in the practicum setting. The second part is a three-hour-per-week practicum experience in a program serving preschoolers or kindergartners.
Prereq: EDPS322 or EDPS325; concurrent registration in ECE302 and admission to the teacher education program

ECE307 Young Children in Peril: Educational Implications 3 hrs
This course analyzes the critical conditions of young children living in poverty and the social-psychological development of all children whose families are in crisis. Educational implications for teachers are emphasized with a focus on child advocacy and early educational interventions that promote understanding of family, ethnic, cultural and socioeconomic diversity.
Prereq: ECE214 and ECE215

ECE314 Infants and Toddlers 3 hrs
This course examines the growth and development of infants and toddlers (conception to 36 months), and the characteristics of high quality child care programs for this age group. The importance of respectful, responsive and interactive care giving, and creating safe, nurturing environments and experiences is emphasized. This course requires 10-12 hours of field experience in the infant-toddler program.
Prereq: ECE214 and ECE215

ECE318 Play and Creativity in ECE 3 hrs
An overview of approaches to play and creative expression in the education of young children. Applications will be made to the fields of early childhood, elementary education, special education and extended day programs. Students will conduct observations and interviews on play and experiment with a variety of play materials and media with children.
Prereq: ECE214, ECE215 and admission to the teacher education program

ECE341 Assessment of the Young Child 3 hrs
Procedures and practices used in the evaluation and assessment of young children from birth through the elementary years, with emphasis on children up through age eight.
Prereq: ECE214, ECE215 and EDPS322 or EDPS325; admission to the teacher education program

Economics Courses (ECON)

ECON100 Introduction to Economic Problems and Policies 3 hrs
A nontechnical introduction to basic problems facing the U.S. economy and different opinions over economic policy choices. Analysis of the controversial role of government in a private market economy. *Not recommended for business students.*
Prereq: not open to students with ECON201/202

ECON177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ECON200 The American Economy 3 hrs
Survey of the principles of economics; the basic knowledge of the functioning of the present-day American economy. *Not open to students with ECON201/202.*

ECON201 Principles of Macroeconomics 3 hrs
The first half of basic principles of economics. Emphasizes macroeconomic concepts of national income, fiscal and monetary policy, and problems of unemployment, inflation and economic growth.
Prereq: Level 3 Math Placement or MATH098 or above

ECON202 Principles of Microeconomics 3 hrs
Second half of an introduction to basic principles of economics. Emphasizes microeconomic concepts of demand, supply and problems relating to prices and resource allocation.
Prereq: Level 3 math placement or above, or MATH098 or above.

ECON277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: one 100- or 200-level course in economics

ECON300 Contemporary Economic Issues 3 hrs
Analysis of contemporary economic problems. Topics may change each semester as the interests and/or problems change.
Prereq: one 100-, 200- or 300-level course in economics

ECON301 Intermediate Macroeconomic Analysis 3 hrs
Examines macroeconomic theories of the determination of national income, employment, the price level, interest rates and economic growth; and linkages between the domestic and international economies. Topics include unemployment, inflation, monetary and fiscal policy, and the policy positions of various schools of thought. Standard

analytical tools, such as IS-LM and aggregate demand and supply are examined.
Prereq: ECON201/202 and either MATH105, MATH118, MATH119 or MATH120

ECON302 Intermediate Microeconomic Analysis 3 hrs
Analyzes contemporary theories of consumer and firm behavior, prices, and resource allocation. Examines firm behavior for several market structures, and evaluates the efficiency and equity implications of market outcomes.
Prereq: ECON201, ECON202, and either MATH105, MATH118, MATH119 or MATH120

ECON303 Consumer Economics 3 hrs
This course focuses on the analysis of consumer economic behavior, the public and private institutions designed to protect consumer's interests and the evolution as well as the effectiveness of consumer education. This course will also include emphasis on buying skills, money management and consumer-citizenship responsibility.
Prereq: one 100-200 or 300-level course in Economics

ECON310 Economic Statistics 3 hrs
Introduction to the statistical measurement and analysis of data with applications to economics. Elements of descriptive statistics, probability, random samples, point and interval estimation, hypothesis testing and regression analysis are examined.
Prereq: MATH105, MATH118, MATH119 or MATH120

ECON320 Labor Economics 3 hrs
Analysis of the theory of wage determination, with attention to labor supply and labor demand, human resource development, trade unions and labor market institutions.
Prereq: ECON201 and ECON202

ECON321 Minority Workers in the Labor Market 3 hrs
Special problems and unique employment situations of minority workers (racial and ethnic minorities, women, handicapped) involving historical and market influences, and employer, union and government policies. Recent and proposed legislation affecting the labor force status of minorities.
Prereq: one 100-, 200- or 300-level course in economics

ECON325 Collective Bargaining 3 hrs
Major problems in present-day collective bargaining including the negotiation of collective agreements, practical aspects and economic implications.
Prereq: one 100-, 200- or 300-level course in economics

ECON327 Economics of Poverty, Inequality and Discrimination 3 hrs
An economic analysis of poverty and income inequality in the U.S., including the effects of discrimination. Examining U.S. income maintenance programs, including social security. Includes international comparisons.
Prereq: one 100-, 200- or 300-level course in economics

- ECON328/WGST328 Economics of Women** 3 hrs
The changing economic role of women in the labor force. Analysis of policies affecting earnings, employment, and work and family issues in traditional and nontraditional occupations. Includes some international comparisons.
Prereq: one 100-, 200- or 300-level course in economics
- ECON329 Economics of Crime** 3 hrs
The use of economic concepts and tools to analyze economic causes of crime and economic policies relevant to crime.
Prereq: ECON202 or equivalent
- ECON332 Urban Economics** 3 hrs
The level, distribution, stability and growth of urban income and employment. Analysis of contemporary urban problems, such as inner-city poverty, housing-land use, transportation and local public services with special reference to economic efficiency and programs.
Prereq: ECON202 or equivalent
- ECON336 Economics of Environment and Natural Resources** 3 hrs
The application of economic concepts and analysis to problems of environment and management of natural resources.
Prereq: ECON202 or equivalent
- ECON337 Energy Economics and Policies** 3 hrs
Introduction to the economics of energy in the U.S. and world economies, including a critical analysis of the policies of the governments involved.
Prereq: ECON202 or equivalent
- ECON340 Money and Banking** 3 hrs
The nature and role of money and credit, the banking system and other financial institutions, and the relation of monetary policy to the level of economic activity.
Prereq: ECON201 and ECON202
- ECON350 Government Finance** 3 hrs
This course examines the role of government in market economies. We analyze current government expenditure programs, such as welfare, health, environmental, housing, education and social security programs. We also analyze equity and efficiency effects of taxes including personal income, corporate income, sales, property and Social Security taxes.
Prereq: ECON202 or equivalent
- ECON361 Corporation Finance** 3 hrs
The structure, financial organization, income and policy decisions of corporations.
Prereq: one 100-, 200- or 300-level course in economics
- ECON370 Comparative Economic Systems** 3 hrs
Alternative approaches to organizing economic activity, emphasizing advantages and disadvantages as compared to the U.S. economic system. Illustrations are taken from noncapitalist economies such as Cuba and China.
Prereq: one 100-, 200- or 300-level course in economics
- ECON375 Economic History of the United States** 3 hrs
Analyzes economic history of the United States including colonial relationships; regional specialization; slavery; property rights; technology; transportation; industrialization; trade flow; monetary and fiscal policy and income distribution.
Prereq: one course in economics or department permission
- ECON377/378/379 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: ECON201 and ECON202
- ECON385 Economic Development** 3 hrs
The causes, the consequences and possible solutions of economic problems facing the developing countries of Latin America, Africa and Asia. Emphasis on mass poverty, food shortages, overpopulation, unemployment and unequal income distribution.
Prereq: one 100-, 200- or 300-level course in economics
- ECON386 Technology and Economic Growth** 3 hrs
The nature of technology and its importance for contemporary economic growth. Includes technological change and its effects on society and the individual.
Prereq: one 100-, 200- or 300-level course in economics
- ECON387 Cooperative Education in Economics** 3 hrs
Provides practical experience in the student's major field for four to six months of full-time employment at an individual employer. The program consists of one or two work experiences (ECON387/487) alternating with full-time attendance at the University. A written report is required at the end of each employment period.
Admittance to program by application only. Graded on a credit/no-credit basis. Credits do not count towards the economics major or minor.
Prereq: ECON201, ECON202 and department permission
- ECON401 Computer Applications in Macroeconomics** 3 hrs
Test of various hypotheses of consumption function, investment function, demand for money function, supply of money process, aggregate production function and labor supply and demand functions. Problems of aggregation and structural vs. reduced-form estimations.
Prereq: ECON301 and ECON310 or equivalent
- ECON402 Computer Applications in Microeconomics** 3 hrs
Applied linear and nonlinear models of the consumer and the firm. Estimates demand functions (for example housing demand and energy demand), cost functions and production functions.
Prereq: ECON302 and ECON310 or equivalent
- ECON405 Economic Analysis for Business** 3 hrs
Analytical tools and methods of economic theory used in business management, focusing on production, cost, pricing and investment. Application includes demand estimation and economic forecasting.
Prereq: ECON201 and ECON202
- ECON406 History of Economic Thought** 3 hrs
A review of the development of economic thought from the age of mercantilism to present times, with the particular emphasis on landmark contributions of writers such as Adam Smith, Karl Marx, Alfred Marshall, J. M. Keynes and significant 20th-century economists.
Prereq: ECON201 or ECON202
- ECON407 Economic Analysis and Law** 3 hrs
The application of economic analysis to the law, including property law, contract law, family law, torts, criminal law, constitutional law, antitrust and environmental law.
Prereq: ECON201 and ECON202
- ECON415 Introduction to Econometrics** 3 hrs
Introduction to the mathematical formulation of economic theories. The use of statistical procedures to measure the theoretical relationships and to verify or reject the theories. Quantitative predictions, measurements and statistical test of the predictions.
Prereq: ECON201, ECON202, and either MATH360, MATH 370 or DS265
- ECON436 Health Economics** 3 hrs
The production, distribution, supply and utilization of health care resources, especially in the United States. Relevant tools of economic analysis and empirical studies, allocation of resources to the health care sector.
Prereq: ECON202 or equivalent
- ECON440 Money, Credit, and Monetary Policy** 3 hrs
An analytical study of the theories of money demand and money supply. Also studied are commercial banking and the operations and conduct of Federal Reserve monetary policy under alternative policy procedures and economic disturbances. The subject is viewed from both domestic and international perspectives.
Prereq: ECON301 or ECON340
- ECON445 Economic Fluctuations and Forecasting** 3 hrs
Study of the history, nature and causes of economic fluctuations. Also included are alternate approaches to economic forecasting used by business and government including econometric forecasting; and the role of monetary and fiscal policies, supply shocks, international factors and structural change in generating economic fluctuations.
Prereq: ECON201 and ECON202

ECON455 Cost-Benefit Analysis 3 hrs
Cost-benefit analysis techniques and their application to evaluating economic efficiency of government expenditure programs. Determination and distribution of benefits and costs in specific public projects.
Prereq: ECON201 and ECON202

ECON460 Industrial Organization 3 hrs
Monopoly, competition, mergers, concentration and antitrust, and other public policies affecting private enterprise in the United States.
Prereq: ECON201 and ECON202

ECON477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: ECON201 and ECON202

ECON480 International Economics 3 hrs
Analysis of theory and economic problems of international trade factor movements, exchange mechanisms, balance of payments, regional economic integration, assistance agencies, and adjustments to changing conditions.
Prereq: ECON201 and ECON202

ECON487 Cooperative Education in Economics 3 hrs
Provides practical experience in the student's major field for four to six months of full-time employment at an individual employer. The program consists of one or two work experiences (ECON387/487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. *Admittance to program by application only. Graded on a credit/no-credit basis. Credits do not count towards the economics major or minor.*
Prereq: ECON387

ECON491 Research Seminar in Economics 3 hrs
Selected issues in economic methodology, research procedures, and techniques with the preparation of a major research paper and group analysis of its findings.
Prereq: ECON301 and ECON302

ECON497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors.

Educational Leadership Courses (EDLD)

EDLD477/478/479 Special Topics 1/2/3 hrs
Courses that can be offered on an experimental basis for one semester for purposes of meeting special needs, interests and/or innovations.
Prereq: department permission

EDLD497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Educational Media Courses (EDMD)

EDMD101 Use of Books and Libraries 2 hrs
Practical instruction in the use of the library's tools and materials. Offered on demand.

EDMD177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDMD277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDMD345 Media for the Classroom Teacher 1 hr
A methods course in which students will produce instructional materials in their teaching area and demonstrate the use of these materials in the classroom environment. The selection, utilization, and evaluation of teaching materials. Various types of media production and utilization equipment.
Prereq: department permission

EDMD377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDMD477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDMD497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Educational Media and Technology Courses (EDMT)

EDMT330 Instructional Applications of Media and Technology 2 hrs
This course guides preservice teacher educators to critically and creatively apply the concepts, principles, hardware and software associated with the infusion of technology in solving educational problems and meeting challenges in their roles as facilitators of learning.
Prereq: CURR304, CURR305, BMMT200, PHED317, MUSC330, MUSC332 or TEDU350; admission to the teacher education program

EDMT477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDMT497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Educational Psychology Courses (EDPS)

EDPS106 Strategic Learning for Academic Success 3 hrs
Introduction to EMU services, diagnostic testing of learning styles and learning strategies for academic success.

EDPS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDPS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

EDPS322 Human Development and Learning 4 hrs
The study of childhood psychology from birth through adolescence with a focus on intellectual and psychosocial behavior and the role of parents and teachers in fostering learning and development.

EDPS325 Life Span Human Growth and Development 4 hrs
An exploration of the biological, cognitive, social and affective domains of human growth and de-

velopment from the prenatal period until death; the relationship of growth and development to behavior through the life span.

EDPS340 Introduction to Assessment and Evaluation 3 hrs

Basic principles in evaluation and assessment. Students will construct and interpret tests and alternative assessments; critique standardized tests; assess social, affective and behavioral factors; use computer applications; and examine assessment issues.

Prereq: EDPS322; admission to the teacher education program

Concurrent prereq: CURR304 or CURR305

EDPS377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

EDPS402 Learning in the Later Years 3 hrs

Introduction to the nature of age-related changes and differences among age groups found in the teaching-learning process. Learning in later years, including processes, strategies and variables associated with the older learner.

EDPS477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

EDPS497/498/499 Independent Study 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Educational Technology Courses (EDTC)

EDTC177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

EDTC277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

EDTC300 Introduction to Computer Applications in Education 1 hr

An introductory course in educational technology with an emphasis on the emergence of technology in schools. Technology and its applications in schools past, present and future. How to operate a microcomputer and run commercially prepared educational software. Instructional applications of

microcomputers, programming languages, communications and educational information. Basic concepts concerned with information processing, systems design and artificial intelligence.

Prereq: department permission

EDTC377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

EDTC477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

EDTC497/498/499 Independent Study 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Student Teaching Courses (EDUC)

All student teaching courses (EDUC490 through EDUC499) provide practical experience in the appropriate classroom under the guidance of mentor supervising teachers.

EDUC490 Student Teaching 8 hrs

EDUC491 Student Teaching 10 hrs

EDUC492 Student Teaching 12 hrs

EDUC493 Student Teaching 2 hrs

For experienced, certified teachers.
Prereq: permission from College of Education Office of Academic Services

EDUC494 Student Teaching 3 hrs

For experienced, certified teachers.
Prereq: permission from College of Education Office of Academic Services

EDUC495 Student Teaching 4 hrs

Prereq: permission from College of Education Office of Academic Services

EDUC496 Student Teaching 6 hrs

Prereq: permission from College of Education Office of Academic Services

EDUC497 Student Teaching 6 hrs

Prereq: credit toward certification in either EDUC496 or EDUC499

EDUC498 Student Teaching 5 hrs

Prereq: credit toward certification in either EDUC496 or EDUC499

EDUC499 Student Teaching 6 hrs

Prereq: permission from College of Education of Academic Services

Electronic Engineering Technology Courses (ELEC)

ELEC120 Principles of Electrical Theory 3 hrs

This course presents an introduction to principles of electrical circuits and components using an applied approach which includes hands-on activity.

ELEC177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ELEC200 Circuit Analysis I 3 hrs

A first course in the fundamentals of circuit analysis and design. Kirchoff's and Ohm's Laws. Thevenin and Norton network theorems, with primary emphasis on DC circuits. Electronic instruments, laboratory data collection and report writing are also emphasized. Simulation software is used for computer assisted learning.

Prereq: MATH105/107

ELEC210 Circuit Analysis II 3 hrs

Second course in fundamental circuit analysis and design. Emphasis will be on steady state analysis and power in AC circuits. Laboratory data collection and report writing. Simulation software is used.

Prereq: ELEC200; Coreq: MATH112, MATH120 or Math Placement

ELEC214 Digital Circuit Analysis I 3 hrs

The study of combinational and sequential circuits, logic families and design procedures. Simulation software is used for computer-assisted learning. Lab exercises with typical circuits data collection and report writing.

Prereq: ELEC200

ELEC215 Computer-Aided Electronics 3 hrs

This course will introduce the student to the computers and software used for electronic circuit design and layout. CAD tools are used to develop block diagrams, electronic symbols, component representation, layout and assemblies.

ELEC218 Motors and Controls 3 hrs

The study of DC and AC motor theory, operation and control. Power, energy, efficiency and applications of motors and motor control circuitry are featured.

Prereq: ELEC200

ELEC219 Techniques of Energy Control 3 hrs

An introduction to the use of tools, materials, machines, equipment, supplies, and mechanisms utilized in power mechanics for energy control. Lecture and laboratory course.

ELEC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ELEC300 Analog Circuit Analysis I 3 hrs
The study of the fundamentals of discrete solid state devices and linear integrated circuits. The concepts of instrumentation and control applications are included. Data collection and report writing are required.

*Prereq: ELEC210;
Coreq: MATH120*

ELEC310 Analog Circuit Analysis II 3 hrs
The continuation of analog circuit design and analysis, including operational amplifiers, filters and phase-locked-loops. Laboratory exercises, data collection and report writing are included; and simulation software is used for enhanced learning.

*Prereq: ELEC300;
Coreq: MATH121*

ELEC314 Digital Circuit Analysis II 3 hrs
The continuation of digital circuit design and analysis. Laboratory exercises with circuitry interfaced to a personal computer and report writing. Simulation software is also used.

Prereq: ELEC214

ELEC320 Microcomputer Circuits 3 hrs
Circuit design and principles are considered, including address-control-data lines in microprocessors, memory and interfacing. Machines and other programming languages are used in laboratory exercises.

*Prereq: ELEC214/300;
Coreq: COSC111*

ELEC326 Transform Circuit Analysis with Calculus 3 hrs
This course presents the fundamentals of transient circuit and system analysis with an emphasis on the Laplace transform and pole-zero approach for analyzing and interpreting problems.

Prereq: ELEC120 and MATH120

ELEC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ELEC387 Cooperative Education in Electronic Technology 3 hrs
An industrial experience in some facet of business or industry where the primary work emphasis is related to electronic engineering technology. During this period employee benefits may be received. *Offered on a credit/no-credit basis.*

Prereq: department permission

ELEC415 Communication Circuits 3 hrs
The principles of communication circuits and systems are studied, including oscillators, amplifiers, modulation, antennas and transmission lines. Information theory, voice and data communications are considered also.

*Prereq: ELEC310;
Coreq: ELEC314*

ELEC420 Advanced Microprocessors 3 hrs
Further study of microprocessors and interfacing applications. Use of personal computers as the platform for data collection, instrumentation and control applications.

Prereq: ELEC310, ELEC314 and COSC211

ELEC450 Senior Design Project 3 hrs
This course is intended to be the capstone activity for the student; includes a proposal phase, development phase and final project, using the skills learned throughout the program.

Prereq: ELEC420 and ELEC415

ELEC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ELEC487 Cooperative Education in Electronic Technology 3 hrs

The second industrial experience for electronic technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. *Offered on a credit/no-credit basis.*

Prereq: ELEC387 and department permission

ELEC494/495/496 Industry-Based Special Topics 1/2/3 hrs

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

ELEC497/498/499 Independent Study 1/2/3 hrs

Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

Prereq: department permission

English Composition Courses (ENGL)

ENGL120 Composition I: Writing the College Experience 3 hrs

Introduces use of writing and reading for inquiry. Students write extended essays about subjects relevant to the college experience using conventions of standard written English; assignments may also incorporate other genres and styles. Emphasis is placed on using writing and reading as a process for discovery, and on communicating ideas to audiences.

ENGL121 Composition II: Researching the Public Experience 3 hrs

Focuses on academic writing and inquiry. Students use multiple modes of research to develop literacy used in academic and other public contexts. Through extended reading and writing, stu-

dents engage in the process of writing researched essays that reflect conventions of standard written English and standard documentation styles.

ENGL177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ENGL225 Writing in a Changing World 3 hrs

Students will analyze and produce writing intended to affect change in particular contexts. Writing in the course will include analyses of and reflections on contexts, genre features and audiences for writing. The course will culminate in a document reflecting understanding of these issues, preferably for an audience beyond the class.

Prereq: ENGL121 and sophomore or graduate standing.

ENGL277/278/279 Special Topics 1/2/3 hrs

An examination of topics in English not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

Prereq: ENGL121

ENGL300 Writing about Literature 3 hrs

An intermediate writing course that introduces students to a variety of critical practices in the study of literature and that teaches the conventions of writing about literature by focusing on reading and writing as interrelated activities. *This course is typically offered fall, winter and spring semesters.*

ENGL307 Writing Process for Elementary Teachers 3 hrs

A course integrating writing in various genres, editing with the conventions of grammar and usage, and teaching with writing-to-learn, reflection, and authentic assessment. Students will develop a writing portfolio and investigate strategies for teaching writing in the elementary classroom. *Restricted to the following majors and minors in the Elementary Education Program: Language Arts major, Language Arts Group minor, and Elementary and Special Education—Elementary Teacher Certification. This course is typically offered fall, winter and spring or summer semesters.*

Prereq: ENGL225

ENGL324 Principles of Technical Communication 3 hrs

A course for juniors and seniors who wish to study the style and focus of communication that is particularly appropriate to the fields of science and technology.

Prereq: ENGL121 and junior or graduate standing

ENGL326 Research Writing 3 hrs

A course designed to explore the strategies, format and styles of writing appropriate for academic research with emphasis on the student's own field of study.

Prereq: ENGL121 and sophomore or graduate standing

ENGL328 Writing, Style and Technology 3 hrs
An advanced writing course that explores a range of styles for multiple purposes, audiences and technologies. Applications of word processing, online discussion and Internet resources will be integrated with writing assignments.
Prereq: JRNL215, ENGL225, ENGL300, ENGL324 or ENGL326

ENGL377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ENGL387 Cooperative Education in English 3 hrs
Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences generally are alternated with full-time attendance at the University.
Prereq: junior standing; admittance by application only

ENGL408 Writing for Writing Teachers 3 hrs
A writing course for students preparing to teach English in secondary schools. Students develop their skills as writers and learn how to teach writing. Special focus on recent composition research, theory, and practices, and on strategies, materials and evaluation techniques. *This course is typically offered fall, winter and spring or summer semesters.*
Prereq: any two ENGL courses at the 200-, 300- or 400-level; admission to the College of Education

ENGL409 Teaching English in the Secondary Schools 3 hrs
For secondary English education majors with focus on appropriate methods and materials for teaching language arts in grades 7-12. Special attention will be given to lesson planning, evaluation techniques and classroom management. *Does not count toward academic majors or minors.* Taken the term before student teaching. *This course is typically offered fall and winter semesters.*
Prereq: CURR305, LING201 and one LITR course at the 300-level; taken the term before student teaching; not open to students on academic probation; must have at least a 2.75 GPA in major; admission to the teacher education program
Coreq: ENGL408

ENGL417 Writing about Controversies 3 hrs
The reading, analysis and writing of argumentative essays on different types of controversies, with emphasis on how to use various types of arguments and appeals for different readers and on the different forms of written arguments.
Prereq: any two, 200-or-300 level, ENGL courses

ENGL424 Technical Writing 3 hrs
An advanced workshop that prepares students to communicate, particularly to write, on the job.
Prereq: ENGL324

ENGL427 Technical Editing 3 hrs
Editing of technical material for publication. Principles of style, format, graphics layout and publication management.
Prereq: ENGL324

ENGL428 Writing Computer Documentation 3 hrs
An advanced writing course that introduces students to the principles of designing, preparing and testing documents common in the computer industry, particularly software documentation for users.
Prereq: COSC101 and ENGL324 or department permission

ENGL444 Writing for the World Wide Web 3 hrs
An advanced writing course focused on composing documents for publication on the World Wide Web and other electronic spaces, such as interactive CD-ROMs.
Prereq: ENGL121 and ENGL225, ENGL300 or any 300-level ENGL class

ENGL450 Children's Literature: Criticism and Response 3 hrs
Practical criticism of children's literature, prose and poetry, designed to help students develop critical judgment and a clear prose style. Applies toward the minor in children's literature and the interdisciplinary major in children's literature and drama/theatre for the young. *This course is typically offered fall and winter semesters.*
Prereq: LITR207

ENGL451 Writing about Controversy in Literature for the Young 3 hrs
This course will deal with strategies for the collection, organization and presentation of materials dealing with controversial issues in literature for young adults. *This course is typically offered winter semesters.*
Prereq: ENGL121 and LITR207 or department permission

ENGL477/478/479 Special Topics 1/2/3 hrs
An examination of topics in English not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: ENGL121 and one writing course at the 200-level or above or department permission

ENGL484 Seminar in Written Communications 3 hrs
A seminar requiring students to assess their progress in the major and to consider how their beliefs and practices concerning written communications relate to larger social and rhetorical considerations.
Prereq: ENGL424

ENGL487 Cooperative Education in English 3 hrs
Employment for pay in a business or industry chosen to provide practical experience in the use of English skills. Work experiences generally are alternated with full-time attendance at the University.
Prereq: senior standing; admittance by application only

ENGL488/489/490 Internship in Technical Writing 1/2/3 hrs
Optional, practical on-the-job work experience for recommended students electing an opportunity provided by the department or finding an appropriate outside opportunity subsequently approved by the intern supervisor; paid or nonpaid. One hour credit for 10-15 hours per week; two hours for 16-25 hours; three hours for 26 and above.
Prereq: junior or senior standing and recommendation of technical writing professor; ENGL324 and cumulative 3.0 GPA

ENGL497/498/499 Independent Study 1/2/3 hrs
An intensive study of a topic not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the teacher and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.
Prereq: nine hours in the appropriate major or minor

Elementary Science Courses (ESCI)

ESCI courses cannot be used to satisfy requirements of the biology major or the biology minor.

ESCI177/178/179 Special Topics 1/2/3 hrs
An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

ESCI277/278/279 Special Topics 1/2/3 hrs
An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

ESCI302 Elementary School Science 3 hrs
Intended for those planning to teach in the elementary grades. Prepares the student to organize the problems, collect the materials, and direct the activities of the elementary science class. Methods of presenting simple experiments to children and conducting field trips will be demonstrated. Two one-hour lectures and one two-hour laboratory.
Not open to students who have taken BIOL303.

ESCI377/378/379 Special Topics 1/2/3 hrs
An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

ESCI477/478/479 Special Topics 1/2/3 hrs
An examination of topics in elementary science not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

ESCI497/498/499 Special Problems in Biology 1/2/3 hrs
Individual work in some area of elementary science under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.
Prereq: department permission

English for International Students Courses (ESLN)

ESLN110 Beginning ESL Grammar 3 hrs
This course focuses on the knowledge and skills necessary to produce grammatically accurate simple and compound sentences in conversation and simple writing assignments. Students will examine the parts of speech, the basic verb tenses, questions and negative forms in sentences and paragraphs.
Prereq: department permission

ESLN112 Beginning ESL Writing 3 hrs
This course leads students through the process of writing paragraphs. Students learn forms of the English paragraph and write, revise and edit paragraphs on a variety of personal topics, while developing their vocabulary and grammatical accuracy.
Prereq: department permission
Coreq: ESLN110

ESLN114 Beginning ESL Reading 3 hrs
Basic Vocabulary is developed while comprehension skills of recognizing main idea, supporting detail, exemplification and narration of materials in simplified English are studied.
Prereq: department permission or placement exam

ESLN116 Beginning ESL Speaking and Listening 3 hrs
This course promotes and practices production and comprehension, conversational and survival levels of communication.
Prereq: department permission

ESLN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission or placement exam

ESLN210 Intermediate ESL Grammar 3 hrs
This course focuses on the knowledge and skills necessary to produce grammatically accurate, coherent texts in speaking and writing assignments on personal topics. Students review basic grammar components and clause structure and study the concepts of time and aspect in verb tenses, comparisons, modals, infinitives, gerunds and passive voice.
Prereq: department permission

ESLN212 Intermediate ESL Writing 3 hrs
This course reviews the writing process at the paragraph level and engages students in writing a series of related paragraphs and short essays on personal and general interest topics in various genres. Stu-

dents demonstrate control of grammar, word usage, coherence and unity.
Prereq: department permission
Coreq: ESLN210

ESLN214 Intermediate ESL Reading 3 hrs
Development of techniques to build vocabulary and reading skills. Materials emphasize informational reading.
Prereq: department permission or placement

ESLN216 Intermediate ESL Speaking and Listening 3 hrs
Development of conversational skills, both speaking and listening. Delivery of short speeches and the development of listening for details.
Prereq: department permission or placement

ESLN277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ESLN310 Advanced ESL Grammar 3 hrs
This course focuses on the knowledge and skills necessary to produce grammatically accurate, coherent texts in spoken and written assignments on general academic topics. Students review intermediate grammar structures and study advanced structures, including parallelism, less frequently used verb tenses, complex sentences and clauses.
Prereq: department permission

ESLN312 Advanced ESL Writing 3 hrs
This course introduces students to composition writing in the academic context. Students review paragraph structure, identify and produce effective compositions in multiple genres, and develop their ability to analyze and critique peer writing.
Prereq: department permission
Coreq: ESLN310

ESLN314 Advanced ESL Reading 3 hrs
Practice in comprehending and analyzing unsimplified texts of greater length and linguistic complexity in a variety of fields.
Prereq: ESLN214, department permission or placement

ESLN316 Advanced ESL Speaking and Listening 3 hrs
Development of conversational, speaking and listening skills. Production and comprehension of short discourses on personal and nonpersonal topics.
Prereq: ESLN216, department permission or placement

ESLN318 Advanced ESL Laboratory 1 hr
Individual and/or group lab sessions.
Prereq: department permission or placement

ESLN377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ESLN410 Academic ESL Grammar 3 hrs
This course focuses on the knowledge and skills required to produce grammatically accurate and coherent texts in extended academic oral and written discourse. Students practice less frequently used verb tenses, verb tense sequencing, modifications to adjective and adverb clauses and multiple forms of noun clauses in various complex sentences.
Prereq: department permission

ESLN412 Academic ESL Writing 3 hrs
This course focuses on academic inquiry and writing with an emphasis on American conventions for non-native speakers of English. Students utilize critical reading and thinking skills to engage in the process of writing researched essays.
Prereq: department permission
Coreq: ESLN410

ESLN414 Academic ESL Reading 3 hrs
Reading in specialized fields at professional levels. Practice in outlining, summarizing and synthesizing ideas from different sources.
Prereq: ESLN314, department permission or placement

ESLN416 Academic ESL Speaking and Listening 3 hrs
Strategies for and practice in comprehending lectures, taking notes and effectively participating in informal and formal classroom speaking activities.
Prereq: ESLN316, department permission or placement

ESLN477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

ESLN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Earth System Science Courses (ESSC)

ESSC107/BIOL107 Introduction to Environmental Science 3 hrs
An introduction to the basic biological, physical and chemical processes that control today's environmental conditions. The global ecosystem is presented as a structure that includes human society. The understanding of local and global environmental problems and discussion of potential solutions are emphasized. *Does not count toward the Biology major or minor.*

ESSC108 Earth Science for Nonscience Majors 3 hrs
This class provides a basic understanding of the nature of the lithosphere, hydrosphere and atmosphere for nonscience majors. Emphasis is on understanding the dynamic processes that affect the

earth and how to apply this knowledge to everyday life. *Does not count towards major or minor.*
Coreq: ESSC109.

ESSC109 Earth Science Laboratory for Non-Science Majors 1 hr
The laboratory class to accompany ESSC108. Applications of the scientific method of inquiry as applied to earth sciences to reinforce basic concepts as taught in ESSC108. Does not count towards major or minor.
Coreq: ESSC108.

ESSC110 The Dynamic Earth System 4 hrs
An introduction to the earth system and its components. Utilizes the scientific method to address composition of the earth system, fundamental processes within the earth system and linkages between all components of the system. Includes consideration of how humans impact and are impacted by, the earth system.

ESSC111 The Earth System Through Time 4 hrs
The origin, development and succession of earth materials, surface and life forms, culminating in one present scene and organic population. Field trips and reports may be required. Required for geology and earth science majors and minors. Lectures: three hours per week. Laboratory: one two-hour period per week.
Prereq: ESSC110.

ESSC114 National Parks and Monuments 2 hrs
This class, geared towards nonmajors, provides an overview of the geology of U.S. national parks and monuments and the basic geologic processes responsible for their formation.

ESSC120 The Fossil Record 3 hrs
The origin, development and succession of life on earth. Systematic study of the evolution of life through time. An introduction to the record of life on earth for the nonscience major.

ESSC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

ESSC200 Introduction to Hydrology 3 hrs
Study of physical, chemical and biological elements of rivers, lakes, wetlands and groundwater, and the economic, social, political and legal issues currently associated with these systems. Required for the hydrogeology major.
Prereq: ESSC110

ESSC202 Earth Science for Elementary Teachers 3 hrs
Lectures and laboratory deal with earth science concepts and teaching methodology. Nationally used elementary science curricula acquaint the student with techniques of teaching basic earth science concepts. Emphasis on student-centered, process-oriented approaches widely used in elementary classrooms. Lecture: two hours per week. Laboratory: one two-hour period per week.
Equivalent to ESSC108.

ESSC208 Natural Environmental Hazards 3 hrs
Analysis of devastating earthquakes, volcanic eruptions, floods, violent storms, freezes and other environmental catastrophes, emphasizing their causes and human adjustments to these events.
Prereq: ESSC110 or ESSC202

ESSC212 Weather, Climate and the Earth System 3 hrs
An examination of earth-sun relationships, the nature of atmospheric processes, weather, and climate. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: ESSC110

ESSC215/AVT215 Aviation Weather 3 hrs
This course provides the student with an introduction to the properties and processes that create weather and addresses aviation specific weather topics to prepare the student for Federal Aviation Administration examinations. Topics include types of weather that adversely affect flight operation and aviation weather services.
Prereq: course available to aviation flight technology or aviation management majors/minors only.

ESSC227 Topographic Maps 2 hrs
Interpretation of distances, slopes and terrain features as shown on topographic contour maps. Preparation of contour maps from numerical data and of topographic profiles from contour maps; the correlation of landforms and landform patterns with the geologic materials and processes responsible for them.
Prereq: ESSC110 or ESSC202

ESSC228 Mineralogy 4 hrs
A study of the crystallography, crystal chemistry and identification of the most important rock forming and economic minerals of the crust of the earth. Lecture: three hours per week. Laboratory: one two-hour period per week.
Prereq: ESSC110 and CHEM121/122

ESSC229 Rocks and Minerals 3 hrs
The identification and classification of rocks and minerals with special emphasis on characteristics used in the field. Lecture: two hours per week. Laboratory: one two-hour period per week.
Prereq: ESSC110

ESSC250 Introduction to Coastal Processes 3 hrs
Description and analysis of the physical and biogeographical processes of ocean and lake coasts. Distribution and origins of coastal environments. Natural and human modification of beach, river valley, estuary, marsh, delta and coral reef environments by waves, currents and tides. Classroom demonstrations and field trips.
Prereq: ESSC110 or ESSC202

ESSC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

ESSC303 Field Geography 3 hrs
Techniques in the observation and analysis of geographic features in the field. Emphasizes individual and group problem formulation, problem solving of geographic questions by using the scientific method and combining traditional field exploration with the use of library aids.
Prereq: ESSC110

ESSC307 Essentials of Oceanography for Elementary Teachers 3 hrs
A course designed to prepare Elementary Education majors to conduct classes using marine-based materials. Ocean processes including marine geology, sediments, seawater properties, currents, waves, tides, coastal environments and marine organisms will be discussed. Students will receive hands-on activities created to directly engage K-6 pupils in the scientific method of investigation.
Prereq: ESSC202

ESSC311 Weather and Climate for Elementary Teachers 3 hrs
Elementary investigation of weather and climate in their geographical distributions and relationships with other components of the earth system. Earth science principles and methods applicable to an elementary classroom using simple materials are stressed. Class activity includes simple hands-on demonstrations, application of the scientific method, field trips and analyses of weather and climate maps.
Prereq: ESSC202 or department permission

ESSC312 Plate Tectonics for Elementary Teachers 3 hrs
This course is an introductory through intermediate-level examination of plate tectonics; the dynamic process that causes earthquakes, volcanoes and mountain building. Students will receive hands-on training designed to directly engage K-6 pupils in the scientific method of investigation.
Prereq: ESSC202

ESSC315 Water and the Environment for Elementary Teachers 3 hrs
This course, designed for elementary education majors, is an introductory through intermediate-level examination of earth science, emphasizing fresh water environments, supply and demand and their relationship to the depletion of natural resources. Students will receive hands-on training designed to directly engage K-6 pupils in the scientific method of investigation.
Prereq: ESSC202

ESSC320 Oceanography 3 hrs
A study of the world's oceans, including coasts, waves, currents, tides, sediments, marine geology, properties of sea water, the energy balance, oceanographic research techniques and marine resources, stressing physical oceanography.
Prereq: ESSC111

ESSC324/ESSC562 Weather 3 hrs
Introduction to the properties and processes that create weather, including an analysis of conditions aloft, the formation of storms, and methods and problems of weather forecasting. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: ESSC212

ESSC325 Geomorphology 4 hrs
A detailed study of surface features and the degradational, aggradational and structural processes by which they are formed. Worldwide examples are used extensively. Lecture: three hours per week. Laboratory: one three-hour period per week.
Prereq: ESSC111

ESSC326 Structural Geology 4 hrs
Introduction to the terminology, geometry, kinematics and mechanics of rock deformation. Laboratory emphasizes geometric techniques of structural analysis. Lecture: three hours per week. Laboratory: one two-hour period per week.
Prereq: ESSC111 and MATH107, MATH112, MATH120 or MATH122

ESSC327 Soil Science 3 hrs
The mineralogical, physical, chemical, and engineering properties of soils as related to soil formation, groundwater movement, soil erosion, plant-soil relationships and land development capability. Field trips and exercises required.
Prereq: ESSC111

ESSC329 Igneous and Metamorphic Petrology 4 hrs
A study of the texture, chemistry, classification, origin and evolution of igneous and metamorphic rocks. Lecture: three hours per week. Laboratory: one two-hour period per week.
Prereq: ESSC111 and ESSC228

ESSC330 Sedimentology and Stratigraphy 4 hrs
The properties, description and classification of sedimentary rocks; processes and environments of sediment deposition; principles and techniques of stratigraphy. Field trips and reports required. Lecture: two hours per week. Laboratory: four hours per week.
Prereq: ESSC111 and ESSC228

ESSC331 Paleontology 4 hrs
Origin and development of life on earth and the environments in which animal assemblages lived. Study of the principles involved in the interpretation of fossils. Systematic study of the features of the organisms most important in the fossil record. Lecture: three hours per week; laboratory: one two-hour period per week.
Prereq: ESSC120, ESSC111 or BIOL120

ESSC347 Teaching Earth Science and Physical Geography 3 hrs
The techniques of teaching laboratory-centered earth science and physical geography courses, emphasizing inquiry teaching and questioning techniques. Practical experience is obtained by teaching actual earth science and physical geography classes. A requirement for teacher certification in earth science, geology and geography. *Not open to students on academic probation.*
Prereq: ESSC320 and ESSC324; admission to the teacher education program

ESSC350 Biogeography 3 hrs
Analysis of the distribution, geologic setting and ecological function of inland freshwater lakes and

Great Lakes coasts. Emphasis on sediment, vegetation, wildlife, waterfowl and fisheries resources.
Prereq: ESSC110

ESSC355 Field Geology I 2 hrs
Theory and practice of precision mapping using tape, alidade, plane table and stadia rod in local area. With ESSC356, satisfies the field requirement for major in geology. May include field study in a quarry.
Prereq: ESSC326, ESSC229 and ESSC330

ESSC356 Field Geology II 3 hrs
Instruction and practice in pace-traverse mapping, measurement of stratigraphic sections and a mapping of areal geology and geologic structure. With ESSC355, satisfies field requirement for geology major.
Prereq: ESSC326, ESSC229 and ESSC330

ESSC370 Glacial Geology 4 hrs
The study of the glacial environment and ice age deposits. Topics include glacial flow, meltwater production, glacial erosion and deposition, formation of landforms and causes of the ice ages. Many labs will involve the outdoor study of ice age landforms and deposits. Weekend field trips and reports required. Lecture: three hours per week. Laboratory: one three-hour period per week.
Prereq: ESSC111

ESSC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

ESSC387 Cooperative Education in Geoscience 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geoscience. A written report is required at the end of the employment period. *Graded on a credit/no-credit basis.*
Prereq: department permission

ESSC406 The Nature of Science 1 hr
This course examines the nature of scientific evidence, inquiry, hypothesis, models and laws. The development of science is put in the context of the structure and history of the scientific community. Interactions among scientists and between scientists and the rest of society are studied from an ethical perspective.
Prereq: ESSC110 and ESSC111. Department permission required for non-earth science majors or minors.

ESSC414 Teaching Science with Dinosaurs 3 hrs
This course provides pre- and in-service teachers with the content and skills necessary to use dinosaurs as a focus group to teach the scientific method (i.e., science) at the K-12 level. Students will receive hands-on training in numerous dinosaur-based activities designed to directly engage K-12 pupils in all aspects of the scientific method, including data collection, hypothesis formulation and hypothesis testing.
Prereq: ESSC108, ESSC110 or ESSC202

ESSC424 Climatology 3 hrs
An analysis of the world's climate types, including characteristics, classification, controls and their effects on world soils and natural vegetation.
Prereq: ESSC324

ESSC425 Severe and Unusual Weather 3 hrs
Analysis of cyclones, blizzards, thunderstorms, tornadoes, hurricanes and other catastrophic weather phenomena. Their environmental impact and prediction.
Prereq: ESSC324

ESSC428 Optical Mineralogy 3 hrs
A study of the optical properties of minerals and the use of the petrographic microscope to identify common minerals in thin section. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: ESSC228

ESSC430 Petroleum Geology 3 hrs
A study of the origin, migration and accumulation of petroleum; reservoir analysis, exploration and development techniques. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: ESSC326 and ESSC330

ESSC439 Economic Geology 3 hrs
A study of the geochemical behavior of metallic elements; the origin, processes, controls and classification of ore deposits. Lecture: two hours per week. Laboratory: two hours per week.
Prereq: ESSC329

ESSC448 Hydrogeology 3 hrs
Subsurface water occurrence, distribution, relationships to surface water and precipitation; subsurface flow, especially as related to well water production; tests of aquifers; well drilling and installation; ground water exploration and recharge; legal problems.
Prereq: ESSC200 and either MATH105 or MATH107 or MATH112 or MATH120 or MATH122

ESSC450 Lake and Coastal Management 3 hrs
An analysis of modern coastal management problems of inland lakes and Great Lakes coasts. Selected topics include beach erosion, dredging, loss of wetlands, wildlife habitat degradation and impact of shoreland development.
Prereq: ESSC250 or ESSC350

ESSC459 Aquifer Analysis 3 hrs
Study of the analysis of aquifer parameters and groundwater flow using analytical, numerical and statistical computer methods.
Prereq: ESSC448

ESSC460 Contaminant Hydrology 3 hrs
Study of hydrochemistry, pollution pathways and transport of contaminants.
Prereq: CHEM121/122 and ESSC448

ESSC470 Quantitative Methods in Geography and Geology 3 hrs
Introduction to current techniques and methods applicable to geographic and geologic problems.

An applied course emphasizing statistical analyses and computer applications.

Prereq: ESSC110 and MATH104, MATH105, MATH107, MATH112, MATH120 or MATH122.

ESSC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

ESSC485 Introduction to Remote Sensing 3 hrs
Introduction to remote sensing techniques and types of imagery, including multispectral, thermal and radar images. Emphasis on image enhancement and interpretation in regard to land-use planning and resource management.

ESSC487 Cooperative Education in Geoscience 3 hrs
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in geoscience. A written report is required at the end of the employment period. *Graded on a credit/no-credit basis.*
Prereq: department permission

ESSC488/489/490 Internship 4/5/6 hrs
Supervised internship in some aspect of geology, earth science or land use that is of mutual interest to the qualified student and the place the student will work. This experience is designed to integrate academic training with practical application. *May be taken only once for credit.*
Prereq: department permission

ESSC495/GPLN495 Environmental Assessment and Planning 3 hrs
An examination of the program elements of environmental impact statements. Geobased data sources are explored and analyzed. Impact statements are prepared by the class and existing impact statements are evaluated.
Prereq: ESSC110 or GPLN215

ESSC497/498/499 Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Engineering Technology Courses (ET)

ET100 Introduction to Engineering Technology 3 hrs
Introduction to the Engineering Technology profession by demonstrating and applying problem solving concepts from science and technology courses. Development of open-ended technological design projects which emphasize the communication skills. Supporting these activities is

a structured syllabus that employs mathematical and physical reasoning towards the solution of fundamental engineering problems.

Prereq: freshmen standing

ET477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

ET497/498/499 Independent Study 1/2/3 hrs
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

Prereq: department permission

Field Experience Courses (FETE)

FETE201 Field Experience I 1 hr
Prospective teachers will participate in a service-learning experience in a diverse community, and examine their beliefs and attitudes about working with others who are different from themselves.
Concurrent prereq: EDPS322

FETE301 Field Experience II: Elementary 1 hr
Field placement in an elementary school. Focus is on reflective teaching and assessment decisions.
Prereq: EDPS322; admission to the teacher education program
Concurrent prereq: CURR304

FETE302 Field Experience II: Secondary 1 hr
Field placement in a middle level or high school. Focus is on reflective teaching and assessment decisions.
Prereq: EDPS322; admission to the teacher education program
Concurrent prereq: CURR305

FETE401 Field Experience III: Elementary 1 hr
Field placement in an elementary school with a diverse student population. Emphasis is on developing literacy in diverse populations and adapting instruction to individual student needs.
Prereq: CURR304; admission to the teacher education program
Concurrent prereq: RDNG310

FETE402 Field Experience III: Secondary 1 hr
Field placement in a middle level or high school with a diverse student population. Emphasis is on developing literacy in diverse populations and adapting instruction to individual student needs.
Prereq: CURR305; admission to the teacher education program
Concurrent prereq: RDNG311

Finance Courses (FIN)

FIN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

FIN277/278/279 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.

Prereq: department permission

FIN287 Cooperative Education in Finance 3 hrs
Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. *Use on a finance major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.*
Prereq: ACC240 and department permission

FIN350 Principles of Finance 3 hrs
A survey course covering the financial operations of business corporations. It begins with a general overview, then goes into detail on several concepts and techniques used in financial decision making. Specific topics emphasized include the time value of money, asset valuation models, risk management and financial statement analysis. The course is designed for the general business student.
Prereq: ACC240 and ACC241 or ACC501

FIN352 Financial Management for Entrepreneurs 3 hrs
A continuation of FIN350, but with an emphasis on financial management for growth of the small- to medium-sized firm. Working capital management, short-term financing, equipment financing and other topics pertinent to the growth firm.
Prereq: FIN350 or equivalent

FIN354 Investments 3 hrs
The purpose of the course is to introduce students to fundamentals of investment analysis. The course attempts to highlight the alternative investments available and develop a way of thinking about investments. The course is a mixture of description and theory. The descriptive material involves a discussion of available investment instruments and considers the way the capital market currently works. The theoretical portion takes into consideration ways you should evaluate current investments and future opportunities.
Prereq: FIN350

FIN357 Financial Markets and Institutions 3 hrs
The operation and behavior of capital markets and financial intermediaries as sources of investment capital to the business firm. Liability management and investment portfolio behavior of financial market participants. Flow of funds through money and capital markets, and investment characteristics of securities traded. Term structure of yields, yield differentials and the valuation of debt and equity securities.
Prereq: FIN350

FIN359 Intermediate Financial Theory 3 hrs
Students learn the theory behind a firm's financial management decisions. The focus is on how a firm creates value through its investment decisions. Topics include the valuation of investment decisions, cost of capital, risk and capital budgeting, real options and mergers and acquisitions.
Prereq: FIN350
Coreq: FIN360

FIN360 Theory of Financial Decisions 3 hrs
Students learn the theory behind a firm's financial management decisions. The focus is on how a firm raises capital and whether financial decisions create value. Topics include short-term financing, capital structure, capital acquisition, dividend policy, leasing, the interaction between the firm's financial and investment decisions, and financial distress and bankruptcy. *Restricted to Finance Majors only.*
Prereq: FIN350
Coreq: FIN359

FIN370 International Business Finance 3 hrs
This course deals with how decisions about financial management are made in modern multinational enterprises. Financial management of any firm involves acquisition of funds, investing of these funds in economically productive assets, the managing of assets so acquired and eventual reconversion of some of the productive assets into funds to return to the original investors, creditors, suppliers, employees and other interest groups. International Business Finance deals with the management of these functions for firms operating in several countries.
Prereq: FIN350 or equivalent

FIN377/378/379 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FIN387 Cooperative Education in Finance 3 hrs
Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. *Use on a finance major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.*
Prereq: FIN287 and department permission

FIN450 Problems in Financial Management 3 hrs
Deals with application of financial management theory. Emphasis is placed on problem solving in differing economic and situational environments using various quantitative tools. Case analysis and class discussions are emphasized.
Prereq: FIN359 and FIN360

FIN451 Introduction to Speculative Markets 3 hrs
This course is designed to provide a solid foundation in the principles of derivatives. It attempts

to strike a balance between institutional details, theoretical foundations and practical applications. Options and futures will be the primary focus.
Prereq: FIN354 or equivalent

FIN453 Commercial Banking 3 hrs
Practices, policies, and problems of commercial bank management and operation, capital adequacy, loan and investment policy, liquidity and profit maximization.
Prereq: FIN350

FIN454 Mortgage Banking 3 hrs
The purpose of this course is to communicate and explain the fundamentals of mortgage lending in as simple and concise a manner as possible. A good portion of the course deals with real estate appraisal.
Prereq: FIN350 or equivalent

FIN477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FIN487 Cooperative Education in Finance 3 hrs
Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. *Use on a finance major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.*
Prereq: FIN387 and department permission

FIN489 Internship 3 hrs
Directed full-time work experience in the finance phase of a business or public organization. *Use on a finance major or minor not permitted. May be repeated once for additional credit. Offered on a credit/no-credit basis. Admittance by application only.*
Prereq: department permission

FIN497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem or group of problems in finance.
Prereq: department permission

General Foreign Language and Bilingual-Bicultural Education Courses (FLAN)

FLAN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FLAN215 The Cultures of Mexican-Americans and Cubans in the United States 3 hrs
A study of contemporary life of two of the principal Latino groups in the United States. Since their language and literature reflect a unique sociocultural situation, they will be used as a point of departure. Topics will include traditional family structure, economic, political, educational, ethnic and religious backgrounds, artistic contributions and prospects for the future.

FLAN277/278/279 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FLAN377/378/379 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FLAN387 Cooperative Education in Foreign Language 3 hrs
Four to six months of full-time employment in a position designed to give practical experience in a field related to the student's foreign language major. The program ordinarily consists of two work experiences (FLAN387/487) alternating with full-time attendance at the University. *Offered on a credit/no-credit basis.*
Prereq: junior standing; admission to the program by application only

FLAN388 Internship 1 hr
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

FLAN411 Theory and Methods of Modern Language Teaching 3 hrs
The history, theory and techniques of modern language teaching. Not counted in the language area of the degree requirements, nor toward a major in any modern language. Should be taken during the fall semester prior to student teaching. Not open to students on academic probation.
Prereq: junior standing, FRNH343/SPNH343/GERN343 or department permission; admission to the teacher education program

FLAN412 Methods of Teaching Modern Languages in the Elementary Grades 3 hrs
This course is designed to prepare students who have already earned secondary teaching certificates in French, German, Japanese and Spanish for careers as foreign language teachers in elementary (K-6) school settings.
Prereq: senior standing, FLAN411, department permission

FLAN421 History and Theory of Bilingual Education 3 hrs
Sociolinguistic and psycholinguistic aspects of bilingualism, language acquisition and cognitive development in the bilingual child, different instructional models for bilingual education programs, and school and community relations. A minimum of 24 hours of field experience required. Not open to students on academic probation.

FLAN422 Teaching Hispanic Culture and Language 3 hrs
The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. Techniques and materials for teaching other subject-matter areas in Spanish. A minimum of 24 hours of field experience in a bilingual classroom required. Not open to students on academic probation.
Prereq: admission to the teacher education program

FLAN477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FLAN487 Cooperative Education in Foreign Language 3 hrs
Four to six months of full-time employment in a position designed to give practical experience in a field related to the student's foreign language major. The program ordinarily consists of two work experiences (FLAN387/487) alternating with full-time attendance at the University. *Offered on a credit/no-credit basis.*
Prereq: FLAN387; admission to the program by application only

FLAN488/489 Internship in Language and International Trade 2/3 hrs
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

FLAN490 Internship in Language and International Trade 3 hrs
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

FLAN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas not covered in formal course work.
Prereq: department permission

Facility Management Courses (FMGT)

FMGT177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FMGT202 Introduction to Facility Management 3 hrs
The student will gain an overview of the facility management profession. The following topics will be introduced: history of the facility management profession, organizational structure, property management, facilities planning, maintenance and operations, managing support services, managing construction projects, strategic planning and budgeting, and conducting a facilities audit.

FMGT230 Facility Operations and Maintenance 3 hrs
This course provides the student with an introduction to the operation and maintenance of facility systems. These systems include: heating, ventilation and air conditioning; elevators; grounds; building exterior and roof; interior walls and floors; plumbing; electrical; telecommunications; fire safety; and security.

FMGT277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FMGT377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FMGT387 Cooperative Education in Facility Management 3 hrs
Facility management majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-credit basis. Credit applicable to the major in facility management only.*
Prereq: department permission

FMGT416 Managing Utilities, Lighting Systems and Code Compliance 3 hrs
This course covers utility rate structures and their effect on building operation strategies, building code requirements, and managing lighting systems for cost efficiency and code compliance.
Prereq: CADM105 and FMGT202

FMGT417 Computer-Aided Facility Management 3 hrs
This course teaches the student how to use software that is dedicated to managing facilities.
Prereq: CADM105 and FMGT230

FMGT418 Building Automation Systems 3 hrs
This course teaches the student how computerized control systems work in a building. The principal systems covered will be: heating, ventilation and air conditioning control; lighting systems-switching and dimming; elevators-optimum scheduling; security-access control and monitoring; and fire safety-air flow controls, alarms and sprinklers.
Prereq: CADM105 and FMGT202

FMGT424 Industrial Plant Facilities and Planning 3 hrs
Planning procedures related to small plant and heavy industrial production. Mass production layout methods, machine and production equipment arrangements, types of plant architecture and related facilities, transportation and handling facilities, lighting, sewerage, ventilation, water supply, electrical power and personal facilities are included.

FMGT432 Senior Seminar in Facility Management 3 hrs
This course is a capstone experience that considers and integrates special problems in facility management.
Prereq: FMGT202, FMGT230, senior standing, completed or concurrent co-op

FMGT477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FMGT487 Cooperative Education in Facility Management 3 hrs
The second in a two-course sequence for facility management majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. *Graded on a credit/no-credit basis.*
Prereq: FMGT387 and department permission.

FMGT494/495/496 Industry-Based Special Topics 1/2/3 hrs
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

FMGT497/498/499 Directed Study in Facility Management Techniques 1/2/3 hrs
Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.
Prereq: department permission

French Courses (FRNH)

FRNH121 Beginning French 5 hrs
Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments.

FRNH122 Beginning French 5 hrs
Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments.
Prereq: FRNH121 or by placement exam

FRNH177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FRNH221 Intermediate French (Reading) 3 hrs
Rapid reading of large quantities of French. Materials include readings in literature and civilization. Students who plan to continue in French should take this course concurrently with FRNH233.
Prereq: FRNH122 or by placement exam

FRNH222 Intermediate French (Reading) 3 hrs
Rapid reading of large quantities of French. Materials include readings in literature and civilization. Students who plan to continue in French should take this course concurrently with FRNH234.
Prereq: FRNH221 or by placement exam

FRNH233 Intermediate French Conversation, Composition and Grammar 3 hrs
A review of grammar; practice in writing and speaking. Sessions in the language laboratory are available. Students who plan to continue in French should take this course concurrently with FRNH221.
Prereq: FRNH122 or by placement exam

FRNH234 Intermediate French Conversation, Composition and Grammar 3 hrs
A review of grammar; practice in writing and speaking. Sessions in the language laboratory are available. Students who plan to continue in French should take this course concurrently with FRNH222.
Prereq: FRNH233 or placement exam

FRNH261 Introduction to Professional Language Study 3 hrs
This course introduces students to the application of professional languages in a variety of settings focusing on oral and written communication. Students acquire the vocabulary and phrases of basic professional interactions, learn to translate documents of different professions and acquire basic interpreting techniques. Students with interests in other careers will find the course helpful and they can complete special projects.
Prereq: FRNH121, FRNH122, FRNH221, FRNH222, FRNH233, FRNH234

FRNH277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

FRNH341 Survey of French Literature 3 hrs
This survey course covers major authors and literary movements from the beginning of French literature up to the 19th century. *In French.*
Prereq: FRNH222 and FRNH234

FRNH342 Survey of French Literature 3 hrs
This survey course covers major authors and literary movements of the 19th and 20th centuries. *In French.*
Prereq: FRNH222 and FRNH234

FRNH343 French Composition 3 hrs
Writing for a variety of purposes and a systematic grammar review. Frequent written assignments. *In French.*
Prereq: FRNH234 or department permission

FRNH344 French Conversation 3 hrs
Builds on the foundation in speaking skills acquired in previous courses. Emphasizes pronunciation, acquisition of vocabulary and idioms for daily life, basic sentence structures and the development of greater oral proficiency. Presentation and practice of phonological principles. Includes a formal proficiency assessment. *In French.*
Prereq: FRNH234 or department permission

FRNH361 French for International Trade 3 hrs
This course is intended for students who already have a solid intermediate-level command of French and who wish to acquire minimum professional competence in the French language as it is used in the world of international business. It includes practice in various forms of business communication, both oral and written. *In French.*
Prereq: FRNH343 or department permission

FRNH377/378/379 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied. *In French.*
Prereq: department permission

FRNH388 Internship 1 hr
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. Credit/no-credit. *In French.*
Prereq: department permission

FRNH443 Advanced French Grammar and Composition 3 hrs
Extensive written practice for a variety of specific purposes integrating advanced grammatical structures. Frequent written assignments. *In French.*
Prereq: FRNH343

FRNH444 Advanced French Conversation 3 hrs
Development of advanced oral proficiency. Emphasizes pronunciation, acquisition of vocabulary and idioms for daily life, advanced sentence structures. Advanced presentation and practice of phonological principles. Includes a formal proficiency assessment. *In French.*
Prereq: FRNH343 and FRNH344 or department permission

FRNH445 French Phonetics 3 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 practical exercises in class. *In French.*
Prereq: FRNH344

FRNH446 Business French I 3 hrs
Study of principles and practices of business communication in France with emphasis on business correspondence and translation. Introduction to the French economy including business law, industry, business and services. *In French.*
Prereq: FRNH361 or department permission

FRNH447 Business French II 3 hrs
Further study of business practices, business law and the French economy. Emphasis on business correspondence and translation and on French ties with the European economic community, the U.S., the East, developing countries and Francophone countries. Prepares student for language proficiency examinations (CCIP diplomas). *In French.*
Prereq: FRNH446 or department permission

FRNH450 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: FRNH343/344

FRNH451/452 Readings in French 1/2 hrs
Special projects in directed readings for majors and minors who have completed the available offerings in French or who, because of most unusual circumstances, are granted department approval to substitute one or both of these for the regular courses.
Prereq: FRNH341, FRNH342 or department permission

FRNH466 French Speaking Cultures of the World 3 hrs
Survey of the more than two dozen different cultures of the world that make up "la Francophonie." Language and cultural variations that one must know in order to understand and to communicate successfully with people in those cultures. *In French.*
Prereq: FRNH343 and FRNH344

FRNH467 French Culture and Civilization 3 hrs
A study of French history and civilization. All major pre-World War I historical periods and cultural movements will be covered. *In French.*
Prereq: FRNH343 or department permission

FRNH476 20th-Century French Civilization 3 hrs
A study of the main events of the 20th century. The major historical and social movements will be covered. *In French.*
Prereq: FRNH343; open to juniors and seniors

FRNH477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

FRNH488/489 Internship 2/3 hrs
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *In French.*
Prereq: department permission

FRNH490 Intensive French Abroad 6 hrs
An intensive linguistic and cultural immersion experience of at least six weeks' duration offered in an approved French-speaking environment. Instruction at many different levels. May be repeated for credit. *In French.*

FRNH492 Capstone Seminar in French 3 hrs
The Senior Seminar is designed to assess all French majors' knowledge and proficiency level in the areas of language, linguistics, literature and culture. Students must demonstrate their proficiency in oral and written french. *In French.*
Prereq: FRNH341, FRNH444 and FRNH342
Concurrent Prereq: FRNH443

FRNH497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Geography Courses (GEOG)

GEOG100 Human Geosciences 3 hrs
This course illustrates the dynamic dependence of global and local human activities upon the known and perceived geoscientific aspects of the earth. Geoscientific knowledge, gained through such disciplines as geography and geology, is constantly evolving. Geoscientific knowledge will effect future human relationships with the earth. This course presents a systematic survey of the subdisciplines of human geography and their interrelationships with the evolving discipline of geology.

GEOG107 Introduction to Geography 3 hrs
A survey of the major concepts and subfields in modern geography. Physical, cultural, economic, political and social geography are among the major areas explored.

GEOG110 World Regions 3 hrs
Geographic evaluation of the human imprint on the world, focusing on how peoples of various societies have approached the problems of living in their natural environments and with each other. A requirement for both the major and minor in geography.

GEOG111 Regions and Resources 3 hrs
A comparative analysis of the economic resources of major regions of the world. The relationships among countries, corporations and multiple levels of technology are examined.
Prereq: GEOG110

GEOG112 Introduction to Travel and Tourism 3 hrs
An introduction to the travel and tourism industry, including traditional and emerging careers; the ethical, behavioral and logistical aspects of the travel experience; traveler needs and motivations; futuristic travel directions; and travel-related organizations.

GEOG113 Foundations of Guest Service 3 hrs
Analysis of guest-host service concepts and interactions in the travel and tourism industry, emphasizing the requisite attitudes and role of the professional host. The course will improve student motivation and skills toward providing positive guest experiences.

GEOG115 Observing the Human Landscape 2 hrs
A geography course for students of any curriculum designed to enlighten travel experiences by developing observational awareness and perceptual appreciation of human landscapes and by enhancing sensitivity to the personality of places.

GEOG177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GEOG212 Geography of Travel and Tourism 3 hrs
A review of the philosophy, historical development and geographical distribution of travel and tourism. The economic, social and environmental impacts of these activities; case studies illustrating their significance from all regions of the world.
Prereq/Coreq: GEOG110 or GEOG112

GEOG235 Economic Geography 3 hrs
Systematic treatment of economic activities in select world locations. Areal factors included in the evaluation, production and distribution of goods and services.

GEOG276/GPLN276 Principles of Geographic Information Systems 3 hrs
Introduction to the concept of computer mapping. Accessing online sources of spatial data; creating digital maps and charts using online data sources; vector and raster data models, spatial data entry and editing; coordinate systems and meth-

ods of geo-referencing digital maps; elementary database management and spatial analysis. (Required for GIS minors and Urban and Regional Planning majors. Also suggested for teachers who would like to incorporate digital mapping into their teaching. Appropriate for all other disciplines using spatial mapping.)
Prereq: GEOG107 or GEOG110, ESSC108 or ESSC110

GEOG277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GEOG313 Geography of Michigan 2 hrs
Detailed analysis of the natural setting, population and settlement characteristics, industry, recreation and agriculture in the state.
Prereq: GEOG110

GEOG314 Geography of Russia and Neighboring States 3 hrs
A systematic and regional study of physical, cultural and economic factors in Russia and other states of the former Soviet Union. Distribution of natural resources, population and ethnic questions, environmental problems and political evolution will be emphasized.
Prereq: GEOG110

GEOG315 Travel and Tourism: The European Scene 3 hrs
Consideration of Europe as the most significant continent for modern tourism. Emphasis is on the natural, cultural and historical factors that form the foundation of this industry; and on the major economic, social and environmental impacts that can be attributed to tourism.
Prereq: GEOG112 and GEOG212

GEOG316 History and Geography of Modern Europe 3 hrs
An interdisciplinary geographical-historical study of modern Europe with the geographical component emphasizing information of an urban, demographic, occupational and environmental nature and the historical component stressing major political, social and cultural developments. Must be taken concurrently with HIST316.
Prereq: GEOG110 and one of HIST101/102/103

GEOG317 History and Geography of Spanish America 3 hrs
An interdisciplinary presentation of the history and geography of Spanish America with emphasis on political, cultural and socioeconomic forces from the conquest to the present. Similarities and differences within and among nations are stressed as are the special relationships that exist between the nations and the United States. Must be taken concurrently with HIST317.
Prereq: GEOG110 and one of HIST101/102/103

GEOG318 Geography of Asia 3 hrs
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.
Prereq: GEOG110

GEOG319 Geography of Europe 3 hrs
Systematic treatment of the natural setting, cultural patterns, economic activities and developmental problems of the continent; selected significant regions analyzed in detail.
Prereq: GEOG110

GEOG320 Geography of the United States and Canada 3 hrs
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.
Prereq: GEOG110

GEOG321 Geography of Latin America 3 hrs
A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.
Prereq: GEOG110

GEOG322 Geography of Africa 3 hrs
A human ecological treatment of the African continent, involving resource identification and use as well as the varied nature of evolving human landscapes.
Prereq: GEOG110

GEOG332 Urban Geography 3 hrs
A study of geographic principles related to distribution, function, structure and regional setting of urban centers.
Prereq: GEOG110

GEOG333 Settlement Geography 3 hrs
Cultural, functional and ecological factors underlying human settlement patterns.
Prereq: GEOG110 or GEOG115

GEOG336 Tourism and Socioeconomic Development 3 hrs
Socioeconomic impacts of tourism; national and international development strategies.
Prereq: GEOG112 or GEOG212

GEOG345 Geography of Resorts 2 hrs
Historical and systematic study of resorting and the resort as a functionally specialized settlement type; major resort areas of the world.
Prereq: GEOG110/212

GEOG348 Teaching Social Studies in Elementary Schools 3 hrs
Survey of the social studies and evaluation of methods commonly used in the teaching of social studies in the elementary grades, with special emphasis on inquiry. Types of activities most effective in the presentation of materials and the use of visual aids are featured. A study of maps and globes, controversial issues, social values, environmental education, consumer education, global education and ethnic groups is included. *Not open to students on academic probation.*
Prereq: one course in geography

GEOG360 Cultural Geography 3 hrs
Human landscape patterns; emphasis upon the processes concerned with their origins, locations and persistence.
Prereq: GEOG110

GEOG361 Geography of Population 3 hrs
An analytical study of population characteristics and growth, world patterns of fertility, mortality and migration. Major attention is given to human population problems, including ecology, resources depletion and impacts of urbanization.
Prereq: GEOG110

GEOG376 Geographic Information Systems Analysis 3 hrs
A more detailed presentation of theories and procedures associated with geographic information systems. Emphasis will be on data models and advanced techniques in data automation, database management and spatial analysis. Students will be exposed to a broad range of functionalities within ArcGIS to conduct GIS analyses, including ArcView and ArcEditor for the analysis and management of spatial data, GeoDatabases for managing personal and enterprise GIS and ArcIMS for dispatching GIS information on Internet or Intranet.
Prereq: GEOG276/GPLN276

GEOG377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GEOG387 Cooperative Education in Geography 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in geography. The program consists of two work experiences (GEOG387/487) alternating with full-time University attendance. A written report is required at the end of each employment period. *Graded on a credit/no-credit basis.*
Prereq: completion of sophomore year, geography major; admittance by application only

GEOG405 Aerial Photo Interpretation 3 hrs
Analysis of black and white and color infrared photographs for land use planning, environmental assessment, geology and resource management. Weekly lab exercises. Optional field trip. *Not open to students with credit in ESSC575.*
Prereq: GEOG276/GPLN276

GEOG441 Transportation Geography and Planning 3 hrs
Explores the evolution of transportation in American society, with special attention paid to the impact of railroads, the automobile and the airline industry. Topics include an introduction to techniques for modeling transportation system demand.
Prereq: GEOG235, GEOG212 or GPLN215

GEOG445 Cultural Tourism Resources 3 hrs
Survey of the relationships between cultural heritage resources and tourism. The tourism potentials of cultural centers and museums, archeological sites, folk crafts and foodways, regional cultural mannerisms, ethnic landscapes, architecturally significant buildings, historic cities and towns, and other types of historic landscapes will be covered.
Prereq: GEOG212 or GEOG336

GEOG446 Heritage Interpretation and Tourism 3 hrs
Evolution of the private sector tour-guiding and the public sector heritage interpretation concepts. Practice in the application of interpretive technique to cultural and natural tourism resources. Strategies for the integrative use of interpretive methods, including tours, demonstrations, talks, person-to-person experiences, publications, exhibits, signage and audiovisuals.
Prereq: GEOG445

GEOG476 Advanced Geographic Information Systems 3 hrs
Advanced concepts and techniques in vector and raster-based GIS. Topics include surface modeling, local, neighborhood and zonal map algebra operators, geostatistical analysis using raster structures and modeling spatio-temporal processes, multicriteria decision analysis, point pattern analysis, spatial autocorrelation, regression models and network analysis.
Prereq: GEOG376

GEOG477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GEOG480 Geographic Information Systems Projects 1/2/3 hrs
A study of different ways in which GIS is being used to resolve problems in the public and private sectors and in academia. Emphasis is on how GIS technology is being used in areas such as facility management, natural resource management, urban planning, environmental modeling, historical preservation, geology, health planning, etc. By working on a number of small, but realistic, projects students learn how to conceptualize GIS solutions to problems and how to professionally implement GIS projects.
Prereq: GEOG376

GEOG487 Cooperative Education in Geography 3 hrs
Four to six months of full-time employment at a firm or agency chosen for imparting a practical educational experience in geography. The program consists of two work experiences (GEOG387/487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. *Graded on a credit/no-credit basis.*
Prereq: GEOG387; completion of junior year, geography major; admittance by application only

GEOG488/489/490 Internship 4/5/6 hrs
Supervised internship in some aspect of geography that is of mutual interest to the qualified student and the place the student will work. Designed to integrate academic training with practical application. *May be taken only once for credit.*
Prereq: department permission and placement

GEOG497/498/499
Independent Study 1/2/3 hrs
Advanced study on individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

German Courses (GERN)

GERN121 Beginning German 5 hrs
Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercises and reading.

GERN122 Beginning German 5 hrs
The goals of the two-course Beginning German sequence are the development of oral and written communication through the use of verbal and nonverbal symbols. The emphasis is on communicative competence (both spoken and written) through the mastery of vocabulary and grammar appropriate to given communicational situations. Besides gaining communicative skills in German, the student can expect to gain some familiarity with modern German culture.
Prereq: GERN121 or by placement examination

GERN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GERN221 Intermediate German Reading 3 hrs
This course consists of readings in German literature and civilization. Students who plan to continue in German should take GERN233 concurrently with GERN221, and GERN234 concurrently with GERN222.
Prereq: GERN122 or by placement examination

GERN222 Intermediate German Reading 3 hrs
This course consists of readings in German literature and civilization. Students who plan to continue in German should take GERN233 concurrently with GERN221, and GERN234 concurrently with GERN222.
Prereq: GERN122 or by placement examination

GERN233 Intermediate German Conversation, Composition and Grammar 3 hrs
This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe.
Prereq: GERN122 or equivalent

GERN234 Intermediate German Conversation, Composition and Grammar 3 hrs
This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe.
Prereq: GERN233 or equivalent

GERN261 Introduction to Professional Language Study 3 hrs
This course introduces students to the application of professional languages in a variety of settings focusing on oral and written communication. Students acquire the vocabulary and phrases of basic professional interactions, learn to translate documents of different professions and acquire basic interpreting techniques. Students with interests in other careers will find the course helpful and they can complete special projects.
Prereq: GERN121, GERN122, GERN221, GERN222, GERN233, GERN234

GERN277/278/279 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

GERN341 Survey of German Literature 3 hrs
This is an introduction to literary criticism as applied to German literature. Extensive readings of materials in German literature and culture. It covers an introduction to literature analysis and major writers and trends in modern German poetry and short stories, and is a prerequisite for all later courses in literature. Students must have sufficient comprehension to follow lectures in German.
Prereq: GERN222 or department permission

GERN342 Survey of German Literature 3 hrs
This is the second part of the introductory survey course in German Literature. It continues the introduction to literary criticism begun in GERN341, and encourages students to apply principles of analysis to a chronological selection of literary works from the beginning of German literature to 1940. It is a prerequisite for all later courses in literature. Students must have sufficient comprehension to follow lectures in German.
Prereq: GERN341

GERN343 German Composition on Cultures and Civilization 3 hrs
A detailed examination of German cultures and historical and contemporary German, Austrian and Swiss life. A systematic grammar review accomplishes process-oriented composition writing.
Prereq: GERN234 or department permission

GERN344 Principles of German Phonetics and Conversation 3 hrs
Students learn where and how German language sounds are formed and articulated. Pronunciation exercises and applied German phonetics are the basis for improved speaking competence in combination with vocabulary and idiom building. Readings, tapes, video, the Internet and film provide conversation stimulus.
Prereq: GERN234 or department permission

GERN361 German for International Trade 3 hrs
Develops working knowledge of commercial material including economics and business in multinational setting. Cross-cultural references provide opportunity for comparative and contrastive analysis of American and German cultural patterns in a business setting. *In German.*
Prereq: GERN343 or department permission

GERN366 The Cultures of German-Speaking Europe 3 hrs
Compares and analyses the history, the culture, and regional varieties of German in Germany, Austria, Switzerland, Lichtenstein, Northern Italy, parts of Belgium, Luxemburg and Romania. Students will compare the societal and historical facts and their implications in the European Union. Discussions, presentations and papers. *In German.*
Prereq: GERN343 and GERN344

GERN377/378/379 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

GERN388 Internship 1 hr
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

GERN425 German Literature from the Middle Ages to the Baroque 3 hrs
Readings from the period are discussed in class meetings and taken as topics for student essays and reports. The literature is considered in the broad context of culture. *In German.*
Prereq: GERN342 or department permission

GERN426 German Literature from 1750-1850 3 hrs
The literature of Germany from the preclassical period through Romanticism is discussed in class meetings and treated in student essays and reports. Perspectives of the other arts and of political and social developments enable the student to appreciate the literature in the context of European civilization. *In German.*
Prereq: GERN342 or department permission

GERN427 German Literature from 1850-1945 3 hrs
Selections from the literature of Poetic Realism, Biedermeier, Naturalism, Neo-Romanticism and

Expressionism viewed against the background of political and cultural history. Classroom discussion and student reports. *In German.*
Prereq: GERN342 or department permission

GERN428 German Literature and Film from 1945 to the Present 3 hrs
This course explores how literary works and films have shaped the cultural life in post-war German-speaking countries of Europe. Classroom discussions, papers and reports. *In German.*
Prereq: GERN342

GERN443 German Syntax and Advanced Composition 3 hrs
Builds on the foundation in written expression acquired in GERN343. Intensive vocabulary and idiomatic writing; treatment of the more complex structural features of German and stylistics. Frequent assignments increase the student's ability to write for a variety of purposes.
Prereq: GERN343/344 or department permission

GERN444 Advanced German Conversation 3 hrs
Development of advanced conversational fluency. A variety of media are employed to increase the student's facility in oral comprehension, and to stimulate conversational exchange among the class members.
Prereq: GERN343 and GERN344 or department permission

GERN446 Business German I 3 hrs
The idiomatic and terminology of the German economy and economic geography. Emphasis on business communication in German.

GERN447 Business German II 3 hrs
The idiomatic and terminology of the German economy and management. Emphasis on business communication and correspondence in German.
Prereq: GERN446 or department permission

GERN451/452 Readings in German 1/2 hrs
Special projects in directed reading for majors and minors who have completed the available offerings in German or who, because of most unusual circumstances, are granted department approval to substitute this for the regular courses.
Prereq: department permission

GERN456 Technical German I 3 hrs
Specialized vocabulary and jargon used in selected fields of technology. Basic technical concepts and terminology that students may encounter in German industry. Development of oral and reading facility as well as accurate translation of technical documents. Selected aspects of electronics, wood and metalworking, metallurgy, brake systems, computers, robotics, and auto production. Content areas will occasionally be changed and updated in order to keep pace with changed student needs and changes in technology.
Prereq: GERN343 or department permission

GERN457 Technical German II 3 hrs
Specialized vocabulary and jargon used in selected fields of technology. Basic technical concepts and terminology that students may encounter in Ger-

man industry. Development of oral and reading facility as well as accurate translation of technical documents. Selected aspects of internal combustion engines, fuel systems, and the petroleum industry. Content areas will occasionally be changed and updated in order to keep pace with changed student needs and changes in technology.
Prereq: GERN456 or department permission

GERN477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

GERN488/489 Internship 2/3 hrs
An opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

GERN490 Intensive German in Europe 6 hrs
An intensive linguistic and cultural immersion experience of at least six weeks' duration in a German-speaking country. Instruction at many different levels. May be repeated for credit. *In German.*

GERN492 Capstone Seminar in German 3 hrs
This Senior Capstone Seminar is a required course to assess all German majors and German Teacher Candidates and is open to all students of German with the appropriate prerequisites. The course reviews areas of German language, linguistics, cultures and literatures and students will demonstrate an *Advanced low* proficiency level.
Prereq: GERN341, GERN342, GERN444 and department permission
Concurrent Prereq: GERN443

GERN493 Reading Knowledge of German 3 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.

GERN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Gerontology Courses (GERT)

GERT177/178/179 Special Topics 1/2/3 hrs
Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing

courses. Since topics change, a student may elect to take the course more than once.
Prereq: department permission

GERT212 Introduction to Careers in Gerontology 1 hr
Exploration of gerontology as a field of study, gerontological research and professional practice; introduction to key professional organizations, literature sources and Internet sources.

GERT277/278/279 Special Topics 1/2/3 hrs
Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing courses. Since topics change, a student may elect to take the course more than once.
Prereq: department permission

GERT377/378/379 Special Topics 1/2/3 hrs
Specialized topics integral to the field of gerontology. Gerontology faculty members will select contemporary topics that are different from existing courses. Since topics change, a student may elect to take the course more than once.
Prereq: department permission

GERT417 Work and Retirement 2 hrs
Issues on the historical aspect of retirement, the realities of retirement, the necessity of preparing individuals for this significant part of their life-span, and work past the age of 65.
Prereq: junior/senior or graduate student

GERT466 Edna Gates Conference: Seminar on Dementia Care 1 hr
This two-day seminar provides opportunity to participate in a premier regional conference on dementia care and network with hundreds of health care professionals. Experts will present on cutting edge developments in research and practice. Students will learn ways to develop partnerships with staff, people with dementia and their families.
Prereq: junior/senior standing

GERT477/478/479 Special Topics 1/2/3 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.
Prereq: department permission

GERT488/489 Gerontology Practicum/ Seminar 2/3 hrs
Integration of knowledge and skills gained from other gerontology courses and life experiences. Insights on aging available from the humanities disciplines.
Prereq: senior standing, completion of two courses in the gerontology minor or advising coordinator's permission

GERT497/498/499 Independent Study 1/2/3 hrs
Directed study in areas not provided in other course offerings or advanced study in areas of special interest to the student.
Prereq: department permission

Historic Preservation Courses (GHPR)

GHPR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GHPR277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GHPR335 Historic Preservation 3 hrs
Introduction to general concepts and goals of historic preservation. The built environment as a cultural heritage resource; objectives of cultural surveys and inventories; methods of preservation, conservation, planning and interpretation.
Prereq: GEOG115

GHPR377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GHPR387 Cooperative Education in Historic Preservation 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in historic preservation, historic administration or heritage interpretation. The program consists of two work experiences (GHPR387/487) alternating with full-time University attendance. A written report is required at the end of each employment period. *Graded on a credit/no-credit basis.*
Prereq: completion of sophomore year, historic preservation or selected minor; admittance by application only

GHPR401/GPLN401 Planning/Preservation Graphics 3 hrs
A lecture-laboratory course in graphics techniques of mapmaking, topographic analysis, communication of data and presentation. Media explored will include pen and ink, colored pencil and markers, and digital photography.
Prereq: GPLN215

GHPR436 Historic Preservation Field Project 3 hrs
Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.
Prereq: department permission

GHPR437 Historic Preservation Field Project 6 hrs
Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.
Prereq: department permission

GHPR475 Architectural Nomenclature 2 hrs
The language and terms of architecture are the focus of this course. The history and development of architectural terminology from the Old World to America will be covered in the first half and the application of same to follow.

GHPR477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

GHPR487 Cooperative Education in Historic Preservation 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in historic preservation, historic administration or heritage interpretation. The program consists of two work experiences (GHPR387/487) alternating with full-time attendance at the University. A written report is required at the end of each employment period. *Graded on a credit/no-credit basis.*
Prereq: completion of junior year, historic preservation or related minor

GHPR488/489/490 Internship 4/5/6 hrs
Supervised internship in some aspect of historic preservation, historic administration or heritage interpretation that is of mutual interest to the qualified student and the place the student will work. This experience is designed to integrate academic training with practical application. *May be taken only once for credit.*
Prereq: department permission and placement

GHPR497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.
Prereq: department permission

Urban and Regional Planning Courses (GPLN)

GPLN115 The American City 3 hrs
This course includes a systematic study of cities as incubators of change, how cities are planned and grow, and their social and political structures. Students will gain an understanding of how cities impact their lives by studying topics such as suburbanization, transportation and land use, and urban lifestyles.

GPLN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

GPLN215 Introduction to Urban and Regional Planning 3 hrs
A general introduction to concepts and techniques of urban and regional planning. An overview of land-use planning tools and ordinances, urban and rural planning issues and preparation of general development plans. Discussion of urban and regional planning as a career, in both public agencies and private firms.
Prereq: sophomore standing

GPLN216 Readings in Urban Planning 2 hrs
A lecture/seminar course in which students read and discuss classic readings in urban planning. This course serves as an introduction to important writers and topics in the field.
Prereq/Coreq: GPLN215; sophomore standing

GPLN276/GEOG276 Principles of Geographic Information Systems 3 hrs
Introduction to the concept of computer mapping. Accessing online sources of spatial data; creating digital maps and charts using online data sources; vector and raster data models, spatial data entry and editing; coordinate systems and methods of geo-referencing digital maps; elementary database management and spatial analysis. (Required for GIS minors and Urban and Regional Planning majors. Also suggested for teachers who would like to incorporate digital mapping into their teaching. Appropriate for all other disciplines using spatial mapping.)
Prereq: GEOG107, GEOG110, ESSC108 or ESSC110

GPLN277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

GPLN306 Comprehensive Planning and Zoning 3 hrs
A course studying issues of comprehensive planning, zoning and land-use regulation. Topics include preparation of a general development plan, current and recent zoning issues, land use legislation and the drafting and use of state and local zoning ordinances. A base course for Urban and Regional Planning students as well as a valuable perspective to anyone interested in rural, urban or regional development issues.
Prereq: GPLN215 and GPLN216

GPLN377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

GPLN387/GPLN487 Cooperative Education 3 hrs
Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in urban and regional planning. The program consists of two work experiences alternated with full-time University attendance. A written report is required at the end

of each employment period. *Offered on a credit/no-credit basis.*

Prereq: completion of sophomore year; urban and regional planning major; admittance by application only

**GPLN401/GHPR401 Planning/
Preservation Graphics 3 hrs**

A lecture-laboratory course in graphics techniques of mapmaking, topographic analysis, communication of data, and presentation. Media explored will include pen and ink, colored pencil and markers, and digital photography.

Prereq: GPLN215

**GPLN409 Professional
Practice for Planners 3 hrs**

A senior-level course for urban and regional planning majors and minors, intended to be taken concurrently with GPLN410. A seminar format is used to present a series of topics relating to professional practice in planning. Readings, case studies, simulations and guest speakers are used to expose students to professional activities, including public hearings, dealing with community controversies, and professional-level communication techniques. Topics also deal with issues of professional ethics and certification.

Prereq: GPLN215 and senior standing; Coreq: GPLN410

GPLN410 Site Planning Studio 3 hrs

A studio course in urban planning, gives hands-on experience in developing a site plan. Using an actual site and client, a project will be taken through the various stages of plan development. Activities include program analysis, data collection, development of alternative solutions, and selection and presentation of a final site plan.

Prereq: GPLN215 and GPLN306 and senior standing

**GPLN435 History of Urban
Form and Function 3 hrs**

Historically important periods of urban planning are analyzed in select cities throughout the world and in the United States. Comparisons are made between city plans from other cultures and our own. *GEOG332 is recommended.*

Prereq: GPLN215 and GPLN216.

**GPLN487/GLPN387 Cooperative
Education 3 hrs**

Four to six months of full-time employment at a firm or agency, chosen for imparting a practical educational experience in urban and regional planning. The program consists of two work experiences alternated with full-time University attendance. A written report is required at the end of each employment period. *Offered on a credit/no-credit basis.*

Prereq: completion of sophomore year; urban and regional planning major; admittance by application only

GPLN477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

GPLN488/489/490 Internship 4/5/6 hrs

Supervised internship in some aspects of urban and regional planning that is of mutual interest to the qualified student and the place the student will work. Designed to integrate academic training with practical application. *May be taken no more than twice for credit.*

Prereq: department permission; sophomore standing

**GPLN495/ESSC495 Environmental
Assessment and Planning 3 hrs**

An examination of the program elements of environmental impact statements. Geo-based data sources are explored and analyzed. Impact statements are prepared by the class, and existing impact statements are evaluated.

Prereq: GPLN215 or GPLN276

**GPLN497/498/499
Independent Study 1/2/3 hrs**

Advanced study on an individual basis in areas in which the department does not offer a formal course. Normally restricted to proficient students in the senior year under the general conditions prescribed for honors courses.

Prereq: department permission; sophomore standing

Greek Courses (GREK)

**GREK101 Beginning
Ancient Greek I 3 hrs**

For students with a strong interest in archaic and classical Greek culture. Acquaints students with sufficient ancient Greek grammar, vocabulary and syntax to facilitate the reading of the masterpieces of Greek literature.

**GREK102 Beginning
Ancient Greek II 3 hrs**

As a follow-up to GREK101, this course will continue to introduce students to ancient Greek grammar, vocabulary and syntax to facilitate the reading of the masterpieces of Greek literature.

Prereq: GREK101

GREK177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

**GREK201 Intermediate
Ancient Greek I 3 hrs**

As a follow-up to GREK101-102, this course will complete a full survey of the elements of the grammar and syntax of ancient Greek. It will also introduce students to the reading of original passages of major authors, especially prose writers such as Herodotus, Plato, Xenophon and the Evangelists.

Prereq: GREK102

**GREK202 Intermediate
Ancient Greek II 3 hrs**

As a follow-up to GREK201, this course will review basic and finer points of the grammar and syntax of ancient Greek during the reading of major

authors such as Homer, Thucydides, Plato, Lysias, Sophocles, Euripides and Aristophanes.

Prereq: GREK201

GREK277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

GREK377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

GREK477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

**GREK497/498/499
Independent Study 1/2/3 hrs**

Advanced study on an individual research basis in areas not covered in formal course work.

Prereq: department permission

Human, Environmental and Consumer Resources Courses (HECR)

HECR177/178/179 Special Topics 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

Prereq: department permission

**HECR277/278/279/280
Special Topics 1/2/3/4 hrs**

An experimental course designed to investigate specific topics of concern in specialization areas.

Prereq: department permission

**HECR287/288/289 Cooperative
Education in HECR 1/2/3 hrs**

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. *Offered on credit/no-credit basis only.*

Prereq: approval of the Cooperative Education Office and department permission

HECR377/378/379 Special Topics 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.

Prereq: department permission

**HECR387/388/389 Cooperative
Education in HECR 1/2/3 hrs**

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. *Offered on credit/no-credit basis only.*

Prereq: approval of the Cooperative Education Office and department permission

HECR476/477/478/479
Special Topics 1/2/3/4 hrs
 An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

HECR494 Food Systems
Management II 1 hr
 Application of supervisory processes to food service systems with emphasis on cost and quality control in food production and labor management. *Open only to dietetics students.*
Prereq: HRM150, MGMT384 and MICR328

HECR497/498/499
Directed Study 1/2/3 hrs
 Opportunity for qualified senior students to carry on an intensive study or project in their area of specialization.
Prereq: department permission.

History Courses (HIST)

HIST100 The Comparative
Study of Religion 3 hrs
 An introduction to the systematic study of religious experience and expression; organized around representative motifs, phenomena and institutions, and illustrated with relevant examples from the various historical religious traditions. Does not count for social science major or minor, or history major or minor.

HIST101 Western
Civilization to 1648 3 hrs
 A topical survey of western civilization from its Greco-Roman origins to the 17th century. Cultural development and institutional growth are emphasized. Greco-Roman contributions, the Judeo-Christian heritage, Byzantine and Islamic cultures, European expansion and militarism, the Renaissance and the Reformation are among the major topics considered.

HIST102 Western Civilization,
1648 to World War I 3 hrs
 A topical survey of western civilization from the 17th century to World War I. Cultural development and institutional growth are emphasized. The Baroque era, Enlightenment, political and industrial revolutions, nationalism and imperialism are among major topics considered.

HIST103 20th-Century Civilization 3 hrs
 An examination of the international developments of the 20th century, with particular emphasis on the interactions between the West and other world cultures.

HIST104/CLAS104 Quest for Power:
Famous Figures in History 3 hrs
 An examination of the lives and times of selected leaders from the ancient and modern worlds. Examples of figures to be covered are Pericles, Nero, Napoleon I and Adolf Hitler. Major literary monuments of the periods will be examined as well. Team taught by a member of the History

Department and a classicist. This course satisfies one literature or one history requirement.
Note: see honors humanities courses.

HIST105 Intro to American Indian
History 3 hrs
 This course is a study of American Indian history and culture with an emphasis on the twentieth century. This course examines how interaction between native peoples and the diverse peoples of the U.S. has over time created a complex society and raised such issues as the theft of natural resources, poverty, the use of Hollywood stereotypes, inferior health care and educational opportunities and the need to redefine traditional cultures within the mainstream America.

HIST106 Asian and
African Civilizations 3 hrs
 The civilizations of the Moslem world, Africa, India and East Asia in historical perspective. Philosophical outlook, cultural development and technological advances are emphasized with attention also being given to social and economic changes in the period since 1500.

HIST109 World History to 1500 3 hrs
 A survey of world civilizations (Africa, Asia, Europe, Western Hemisphere) from prehistory to 1500. The course will emphasize the diversity and interrelationships of world cultures and civilizations.

HIST110 World History since 1500 3 hrs
 A survey of world civilizations (Africa, Asia, Europe, Western Hemisphere) from 1500 to the present. The course will emphasize the diversity and interrelationships of world cultures and civilizations.

HIST115 Making American Society: Race,
Ethnicity and Gender in
Historical Perspective 3 hrs
 Through historical perspective, students will understand the difficult questions about diversity that have confronted people of every generation and the accommodations made through law, institutions and changed social habits. By understanding past tragedies, successes, mistakes and wise choices, students will be better citizens of the present and guardians of the future.

HIST123 The United States to 1877 3 hrs
 A study of United States history through the Reconstruction following the Civil War.

HIST124 The United States,
1877 to the Present 3 hrs
 A study of United States history from the end of Reconstruction to the present.

HIST151 Reason and Revolution 3 hrs
 An examination of the transition in political history, philosophy, art, literature and music from Puritan England and Louis XIV's France to Napoleon. Team taught by members of the Art and History departments. This course satisfies one art or one history requirement. Note: see honors humanities courses.

HIST177/178/179 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

HIST277/278/279 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: one course in history or department permission

HIST290 Introduction to
the History of Technology 3 hrs
 An introduction to western technology from medieval times to the present. Examines the process of technical change, the nature of technological systems, the diffusion of technological improvements and the role of technology in broader historical movements.

HIST300 Researching and
Writing History 3 hrs
 An introduction to the historian's skills. Exercises include compiling a bibliography, writing book reviews and preparing a research paper. Required for the history major.

HIST301 The Religions of
South and East Asia 3 hrs
 A survey of the religious traditions of India, Ceylon, Burma, Thailand, China, Tibet and Japan, showing the interaction of folk religion with the developing concepts and institutions of Hinduism, Buddhism, Confucianism, Taoism and Shinto.
Prereq: HIST100, HIST106 or department permission

HIST302 Near Eastern
and Western Religions 3 hrs
 A survey of the historical evolution of the several religions originating in western Asia, concentrating especially on the development and interaction of Judaism, Christianity and Islam.
Prereq: HIST100, HIST101 or department permission

HIST303 History of American Religion 3 hrs
 A survey of religious institutions and ideas in relation to American culture from colonial times to the present.
Prereq: one course in history or department permission

HIST305 Native American History 3 hrs
 An ethnohistory of America's indigenous peoples and nations from before contact to the present.
Prereq: one course in history or department permission

HIST306 Hinduism 3 hrs
 This course is a thematic and historical study of Hinduism and the related Indian religions of Jainism and Sikhism. The course traces the development of religion in South Asia from prehistory to the present and examines the diverse ideas, values and ways of life that make up Hinduism today.
Prereq: sophomore standing

HIST307 Buddhism 3 hrs
This course is a thematic and historical study of the Buddhist tradition. It traces the development of Buddhism from its origins in ancient India to the present and examines the diverse ideas, values and ways of life that make up Buddhism today.
Prereq: sophomore standing

HIST309 France to 1789 3 hrs
A study of the main currents in early modern times with special emphasis on the impact of the Protestant Revolt and the Renaissance on French society, the rise of absolutism and the political and intellectual background of the French Revolution.

HIST310 France since 1789 3 hrs
An examination of the major trends in French history since the start of the Revolution. Stresses cultural, social, economic, intellectual and political trends, and treats the ways in which France has been a seedbed for new movements in Europe.
Prereq: HIST102 or department permission

HIST313 Michigan History 3 hrs
A survey of major economic, social and political developments in Michigan from prehistoric times to the present. Emphasizes the period prior to the 20th century.

HIST315 History of Black Americans 3 hrs
A history of Americans of African ancestry from colonial times to the present. Emphasizes slavery, the post-Civil War South, northward migration and urban settlement, and philosophies of racial progress.
Prereq: one course in history or department permission

HIST316 History and Geography of Modern Europe 3 hrs
An interdisciplinary and geographical-historical study of modern Europe with the geographical component emphasizing information of an urban, demographic, occupational and environmental nature, and with the history component stressing major political, social and cultural developments. A requirement for majors in language and international trade. *Must be taken concurrently with GEOG316.*
Prereq: GEOG110 and either HIST101, HIST102 or HIST103

HIST317 History and Geography of Spanish America 3 hrs
An interdisciplinary geographical-historical study of Spanish America, emphasizing political, cultural and socioeconomic forces from the conquest to the present. Stresses similarities and differences within and between nations and the special relationships that exist between the nations and the United States. A requirement for majors in language and international trade. *Must be taken concurrently with GEOG317.*
Prereq: GEOG110 and either HIST101, HIST102 or HIST103

HIST319 The Civil Rights Movement in the United States 3 hrs
Focusing on the 20th-century history of the African American struggle for equality, this course examines the rise of de jure racial segregation as a social system; the origins and early history of the

Civil Rights movement; the movement's development from the 1920s through the 1950s and its historic victories over segregation in the 1950s and 1960s.
Prereq: HIST124, HIST315 or department permission

HIST321/CLAS321/WGST321 Women and Gender in the Ancient World 3 hrs
An investigation of conditions of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.
Prereq: one course in history

HIST323 Greek History 3 hrs
Examines the Greeks' achievements from the Bronze Age to the Roman conquest, focusing on the period after 800 B.C.E.-C.E. 500. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments.
Prereq: one course in history

HIST324 Roman History 3 hrs
Examines the Romans' achievements from earliest times to the German conquest, focusing on the period 500 B.C.E.-C.E. 500. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments.
Prereq: one course in history

HIST326 History and Geography of Modern Asia 3 hrs
An interdisciplinary geographical-historical study of modern Asia. The geography component emphasizes urban, demographic, occupational and environmental trends and developments; the history component stresses major political and social developments and international relations. A requirement for majors in the Japanese program in language and international trade. *Must be taken concurrently with GEOG326.*
Prereq: GEOG110 and either HIST103 or HIST106

HIST327 Europe in Early Middle Ages 400-1050 3 hrs
Analyzes emergence of common European culture from fusion of Roman, Germanic and Christian elements. Includes examination of Merovingian and Carolingian culture, Anglo-Saxon Britain, Ottonian Germany, medieval Christianity and medieval women. Cultural institutions of Celts, Moslems and Vikings also explored.

HIST328 Europe in Late Middle Ages 1050-1400 3 hrs
Examines local feudalism and rise of French and English feudal monarchies. Special emphasis on crusades, medieval Christianity and heresy, women and Paris and Venice in late middle ages. Culture explored through extensive use of contemporary literature and art.

HIST330 Europe in the Renaissance and Reformation 3 hrs
A survey of the political, cultural, religious and economic history of Europe from the Italian Renaissance to the Peace of Westphalia.

HIST332 Modern Europe 1815-1919 3 hrs
A study of the development and conflicts of the national states of Europe from the Congress of Vienna to the Treaty of Versailles.

HIST333 Europe since 1919 3 hrs
A history of Europe since Versailles with emphasis upon the Communist, Fascist and Nazi revolutions and their impact on the world, the origins and outbreak of the Second World War, and the post-1945 era.
Prereq: junior standing or department permission

HIST335/WGST335 History of Women in Europe 3 hrs
A study of the history of women and views of women in western society from the 18th century to the present. Emphasizes the struggles, setbacks and achievements of the women's movements in the context of modern European history.
Prereq: one course in history or department permission

HIST336/WGST335 History of Women in the United States and Great Britain, 1800 to the Present 3 hrs
A comparative study of the history of women in the United States and Great Britain. Examines the ideology of the nature and role of women, the history of women's lives, the impact of industrialization and the feminist movements of the 19th and 20th centuries.
Prereq: one course in history or department permission

HIST338 German History Since 1815 3 hrs
Considers unification and Empire, World War I, the Weimar Republic, the rise of National Socialism, World War II and postwar Germany.
Prereq: junior or department permission

HIST339 Arab-Israeli Conflict 3 hrs
Course covers a major, ongoing issue in 19th- and 20th-century history, namely the conflicts between Arabs and Israelis in the Middle East.
Prereq: one course in history or one course in political science or department permission

HIST341 The Middle East, 1798 to the Present 3 hrs
A survey of the political, economic and social history of the Middle East, including Turkey and Iran, with emphasis on the growth of independence movements within the area.
Prereq: junior standing or department permission

HIST342 North Africa, 1798 to the Present 3 hrs
A survey of the political, economic and social history of North Africa, Egypt and the Sudan, emphasizing the internal movements for independence from colonial powers.
Prereq: junior standing or department permission

- HIST343 Russia to 1855** 3 hrs
A survey of political, economic and cultural trends in the history of Russia from Rurik to the death of Tsar Nicholas I, with special emphasis on the growth of tsarist absolutism.
Prereq: junior standing or department permission
- HIST344 Russia since 1855** 3 hrs
A survey of the political, economic and diplomatic history of imperial Russia and the Soviet Union from the great reforms of the 1860s to the present.
Prereq: junior standing or department permission
- HIST347 Sub-Saharan Africa to 1885** 3 hrs
The historical evolution of sub-Saharan African civilizations including their origins, interrelations and responses to European colonialism.
Prereq: junior standing or department permission
- HIST348 20th-Century Africa** 3 hrs
A detailed examination of black Africa's response to the historical experience of European colonialism, along with the evolution of those responses, forms and patterns applicable not only to Africa, but also to the entire non-Western world.
- HIST350 History of Canada** 3 hrs
A survey of the development of Canada from pre-historic times to the present with an emphasis on social and economic topics.
- HIST355 Latin America: Colonial Period** 3 hrs
Surveys the history of Spanish America and Portuguese America from the conquest to the independence era, stressing political, social and economic aspects.
Prereq: junior standing or department permission
- HIST356 Latin America: National Period** 3 hrs
Surveys the history of Latin America from the independence era to the present, stressing political, social, intellectual and economic topics.
Prereq: junior standing or department permission
- HIST362 United States Urban History** 3 hrs
The development of United States cities from the commercial town of colonial times to the industrial metropolis of today. Emphasizes urban economic activities, boss and reform politics, immigrant and racial minorities, and city and suburban expansion.
Prereq: junior standing or department permission
- HIST364 United States Military History** 3 hrs
A study of the origins and developments of military institutions, traditions, and practices in the United States from the colonial period to the present, with attention given to the interrelationship between military history and political, social and economic conditions in the United States and the world. A requirement for cadets in ROTC programs.
Prereq: one course in history
- HIST365 The Old South** 3 hrs
The South from the colonial foundations to the formation of the Confederacy in 1861.
Prereq: HIST123 or department permission
- HIST375 Modern India** 3 hrs
The development and maturing of British rule in India against the background of Indian culture. Examines the rise and development of Indian nationalism, the struggle for independence and the problems faced by India since 1947.
Prereq: one course in history
- HIST377/378/379 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: one course in history or department permission
- HIST380 American Colonies to Independence** 3 hrs
A study of the European prelude to colonization; the founding of the colonies, and their political, economic and social development; the deterioration of the relationship between Great Britain and the American colonies after 1763.
Prereq: HIST123 or department permission
- HIST383 The Age of Jackson** 3 hrs
A study of the United States from the end of the War of 1812 through the Mexican War, with the major emphasis on the transportation revolution, sectionalism, the second American party system, "Manifest Destiny" and the social movements of the era.
Prereq: HIST123.
- HIST385 Civil War and Reconstruction** 3 hrs
A study of the United States from the Mexican War through the era of Reconstruction. Examines the sectional tensions leading to the Civil War; the political, social, military and economic aspects of the war; the problems of reconstruction and the rise of the solid South.
Prereq: junior standing or department permission
- HIST387 Cooperative Education in History** 3 hrs
Four to six months of full-time employment in a business or industry chosen to provide practical experience in the student's major field. The program consists of one or two such work experiences alternating with full-time attendance at the University.
Prereq: junior standing; history or social studies major; admittance to program by application only; department permission
- HIST411 England to 1689** 3 hrs
The general history of England to the Revolution of 1688, with emphasis on its cultural and constitutional contributions to the modern world.
- HIST412 England 1689 to Present** 3 hrs
England in the period of imperial expansion, its industrial and social revolutions and its transition into a modern socially minded nation. A continuation of HIST411.
- HIST414 The Automobile Industry and Modern America** 3 hrs
An examination of the European and American origins of the automobile industry, the emergence of Michigan's dominant position in the industry, and the social, economic and general cultural influence that the automobile and the industry have exerted on 20th-century America.
- HIST415/WGST415 Sexual Communities in American History** 3 hrs
This class addresses the history of sexuality and the development of communities based on sexual identity in the United States. Topics include the origins of scientific theories of sexuality, the development of social movements around sexual issues and social responses to sexual minorities.
- HIST424 The United States from 1917 to 1941** 3 hrs
A study of United States history from World War I through U.S. entry into World War II. The course covers foreign affairs, national government and politics, economic developments and social trends. World War I, modernization and cultural conflict of the 1920s and the Great Depression, and New Deal of the 1930s receive special attention.
Prereq: HIST124 or department permission
- HIST425 The United States from 1941 to 1963** 3 hrs
A study of United States history from entry into World War II to the death of President John F. Kennedy. The course covers national government and politics, foreign policy and social history of the American people. World War II diplomacy and home front; Cold War; Truman, Eisenhower and Kennedy administrations; Red Scare; civil rights; suburbanization; mass culture; and other postwar social and cultural trends receive special attention.
Prereq: HIST124 or department permission
- HIST426 The United States from 1963 to the Present** 3 hrs
A study of United States history from the presidency of Lyndon B. Johnson to the present. The course covers national government and politics, foreign policy and social history of the American people. The Great Society; Vietnam War; protest movements of the 1960s; Nixon administration and Watergate; economic, social and cultural trends of the 1970s and 1980s; the conservative resurgence; and the Reagan Revolution and its aftermath are among topics that receive special attention.
Prereq: HIST124 or department permission
- HIST427 Europe from Absolutism to Revolution, 1648-1815** 3 hrs
A political, social and cultural study of Europe from the Peace of Westphalia through the Napoleonic Era. Emphasizes the development of absolutism in France, constitutionalism in England, the Enlightenment and the French Revolution.
- HIST435 Italy since 1815** 3 hrs
The political, social and economic development of Italy from the Congress of Vienna to the present. Emphasizes the unification movement, domestic and foreign problems of the 19th and 20th centuries, World War I and its effects, Mussolini and Fascism, World War II and the new liberal republic.
Prereq: junior standing or department permission

HIST441 The Far East to 1800 3 hrs
A study of the history of China, Korea and Japan from ancient times to the beginning of the 19th century, stressing political, cultural and social developments and the dominant role of China.
Prereq: one history course

HIST442 Modern China 3 hrs
China from 1800 to the present: traditional Confucian China in crisis, impact of the West, reform and revolution. Republican China, the Communist revolution, China since 1949.
Prereq: one history course

HIST443 Modern Japan 3 hrs
Japan from 1800 to the present: collapse of the shogunate, 19th-century reforms, rise of the empire to great power status, defeat in World War II, postwar changes. Political, economic and cultural developments are considered.
Prereq: one course in history

HIST444 China and its Nomadic Neighbors 3 hrs
This course traces the evolution of relations between the Chinese empire and the peoples of northern and central Asia between 100 BCE-1700 CE. It will include the economics and geographical factors that influenced the interactions between sedentary Chinese and nomadic peoples.
Prereq: one course in history; junior standing

HIST450 European Military History, 1815-1945 3 hrs
This course will examine the European art of war from Napoleon to the end of World War II. Topics include the Boer War, Russo-Japanese War, World War I, Spanish Civil War and World War II. A key question will be the role played by new "hardware," such as rifles, machine guns and the tank.

HIST451 History of the First World War 1914-1918 3 hrs
This course will offer a detailed look at the origins, course, and results of the so-called "Great War" from 1914-1918, a conflict better known today as the First World War. Special attention will be paid to the military campaigns of the war, with particular emphases on the role of the new industrial technology upon military tactics and operations.

HIST456 Europe since 1945 3 hrs
Study of the political, economic, social and diplomatic history of Europe since the end of World War II, with emphasis on the Cold War, economic recovery and decline, the European integration movement, solidarity and dissension within the communist bloc, stability and unrest within the democracies, and the impact of U.S.-Soviet détente.
Prereq: one course in history or department permission

HIST457 History of Mexico 3 hrs
An introduction to Mexican history from the Amerindian period through the recent past. Examines political, social, economic and cultural developments in the area comprising the present day nation as well as those areas in North America once included in Mexico.
Prereq: junior standing or department permission

HIST461 Foreign Relations of the United States 3 hrs
A survey of the foreign relations of the United States emphasizing the diplomacy of the period after the Civil War.

HIST463 United States Labor History 3 hrs
A history of workers in the United States from colonial times to the present with special emphasis on developments occurring between 1820 and 1940. Considers working-class life and culture, labor unions, government-labor relations and the impact of economic change.
Prereq: one course in history

HIST464 The Old West, 1540-1890 3 hrs
A study of Spanish settlement, the fur trade, great explorations, settlement and expansion, transportation and mining frontiers, the cattle industry and cowboy culture, and the impact on the Indians.
Prereq: one course in history

HIST465 United States Constitutional History 3 hrs
A history of the development of the American Constitution from English and American colonial origins to the present.
Prereq: HIST123 or HIST124 or department permission

HIST468 The American Mind to the Civil War 3 hrs
Ideas and culture in America during the 17th, 18th and early 19th centuries. Includes such subjects as Puritanism, the Enlightenment and Romanticism/Transcendentalism, together with their general cultural implications.
Prereq: HIST123 and junior standing

HIST469 The American Mind Since the Civil War 3 hrs
Ideas and culture in America during the late-19th and 20th centuries. Includes such subjects as pragmatism, social Darwinism, nationalism and internationalism, and liberal and conservative thought together with their general cultural implications.
Prereq: one course in history and junior standing

HIST471 Social and Intellectual History of 19th-Century Europe 3 hrs
A detailed study of the original concepts of Europe's 19th-century intellectuals whose works were of major influence in the 19th and 20th centuries.
Prereq: junior standing or department permission

HIST477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: one course in history or department permission

HIST480 The American Revolution (3 hrs)
A survey of the transformation of the colonies into the United States of America, with emphasis on British policies and colonial response, the military and diplomatic conduct of the War for Independence, and the impact of the independence on the thirteen states. Attention to historical interpretations will be stressed.
Prereq: HIST123 and junior status.

HIST481 The Teaching of Social Studies 3 hrs
For intending teachers in junior and senior high schools. Examines the nature of the subjects included in social science in the public schools and the problems related to the teaching of history and other social studies. Not open to students on academic probation.
Prereq: admission to the teacher education program

HIST482 The Age of Washington and Jefferson 3 hrs
The formation of the new nation during the War for Independence, the creation of the Constitution, the Federalist era, the Republican administration through Madison's term in office, the War of 1812 and postwar diplomacy.
Prereq: HIST123 or equivalent

HIST486 The United States as an Emerging World Power 3 hrs
The passing of the frontier after the Civil War, the Industrial Revolution, the big city and its problems, Populist revolt and Progressive reform, Imperialism and World War I.
Prereq: HIST123, HIST124 or department permission

HIST487/HIST488/HIST489 Internship 3 hrs

HIST497/498/499 Independent Study 1/2/3 hrs
Study on an individual basis in areas in which the department does not currently offer formal courses. These courses are restricted to highly proficient students. Students are limited to a maximum of three hours of independent study in history during any semester or session.
Prereq: department permission

Health Administration Courses (HLAD)

HLAD177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

HLAD250 Introduction to Public Health 3 hrs
This course will survey public health organizations, services, and the philosophical, legal and ethical complications of public health problems. Health status of populations, anticipation, prevention and responses to epidemics and other threats to community health will be discussed. Illustrations will be used from an international perspective.
Prereq: sophomore standing

HLAD277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

- HLAD287 Cooperative Education in Health Education** 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to health administration. The cooperative education sequence consists of two work experiences (HLAD287/387) alternating with full-time attendance at the University.
Prereq: sophomore standing and health administration major
- HLAD300 Health Care Issues** 2 hrs
This survey of the organization, traditions, professional stratification, and current issues of the U.S. health care system is designed to introduce the non-health administration major to the field of managing and administering health care services in hospitals, public health systems, nursing homes and ambulatory settings.
- HLAD305 The U.S. Health Care System** 3 hrs
A survey of important issues facing the health field: the U.S. health care system and the relationship between components; the changing nature of the health field and implications for the future (encouraged in sophomore year or early junior year).
- HLAD307 WI Communication Effectiveness in Health Administration** 3 hrs
Health administration has no room for poor communication; errors can be serious and quality can be compromised HLAD307 prepares students for a career that is highly dependent on excellent writing and communication skills HLAD307 is a corequisite with HLAD305 and meets the EMU General Education Writing Intensive requirement.
Prereq: sophomore standing, departmental permission and a major or minor in health administration Coreq: HLAD305
- HLAD308 Ethical Dimensions in Health Care Delivery** 3 hrs
This course presents information that students interested in the health professions may use to identify ethical situations and to resolve dilemmas they may face in their professional lives.
- HLAD310 Administration of Health Care Organizations** 2 hrs
Analysis of modern health care organizations with emphasis on management structure, boards of trustees, administration, physicians and others. Delivery of institutional patient care, role of professionals and other personnel, and departmental interrelatedness.
Prereq: HLAD300 or HLAD305
- HLAD311 Management of Health Services** 3 hrs
A continuation of HLAD310, emphasizing quantitative methods in program implementation, control and evaluation. The administrative role in financial control, the legal aspects of control and the control of human resources is examined.
Prereq: HLAD310
- HLAD312 Health Personnel Management and Development** 3 hrs
This course examines the concepts, models and methods used in managing and developing human resources in health care provider organizations as well as in the health care system as a whole.
Prereq: HLAD305
- HLAD315 Research Methods and Data Analysis in Health Sciences** 3 hrs
Introduction to the application of statistical methods and research design to a range of practice and research problems in the health sciences.
Prereq: college algebra
- HLAD377/378/379 Special Topics** 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission
- HLAD387 Cooperative Education in Health Education** 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to health administration. The cooperative education sequence consists of two work experiences (HLAD287/387) alternating with full-time attendance at the University.
Prereq: department permission
- HLAD401 Legal Issues in Health Care** 3 hrs
This is a survey of the laws that govern the health care system. Litigation, malpractice, contract, regulation, licensure of health care personnel and the use of human subjects in medical research are among the topics discussed.
- HLAD416 Health Planning** 3 hrs
This course examines in detail the essence of health planning as practiced in the health care industry. Topics include the history of health planning, planning theory and conceptual foundations, public sector planning and policy-making, private-sector planning and health planning methods. Special emphasis is placed on health planning as an ongoing process that should be developed by health care organizations in order to be successful.
Prereq: HLAD310
- HLAD417 Health Regulation** 3 hrs
This course will provide an overview of health care regulation from the perspective of providers, the government regulator and the general citizenry. Topics of discussion will include licensing and private accreditation, the regulation relating to cost containment, alternative delivery systems, health care reform, rate regulation and health planning.
Prereq: HLAD310
- HLAD418 Principles of Healthcare Finance Management** 3 hrs
Principles of Healthcare Finance provides students with procedures and techniques that assist healthcare managers in accomplishing the health care organizations purpose.
Prereq: HLAD305/310 and ACC240
- HLAD420 Health Insurance and Reimbursement** 3 hrs
This course focuses on health insurance and other reimbursement methods. Key topics include private and public sectors insurance, underwriting principles, insurance contracts, inpatient and outpatient payment, mechanisms, regulations and reserves as they apply to the health care system.
Prereq: HLAD310
- HLAD421 Managed Care** 3 hrs
This course will provide an overview of the managed-care industry. It will discuss the origins of managed care, the mechanics of managed care, and the effects of managed care across the various constituencies involved (purchaser, provider and patient). The role of managed care in the area of health reform will also be treated in some detail.
Prereq: HLAD420
- HLAD425 Decision Making for Health Administrators** 3 hrs
The integration of many knowledge areas into health administration. A capstone course utilizing case studies, role playing, simulation and games.
Prereq: HLAD420
- HLAD460 Long-Term Care Administration** 3 hrs
This course is for students seeking a career in long-term care services, or the regulation of long-term care. Long-term care includes care for the aged and other vulnerable people due to disease or trauma. Students will study the continuum of care and specific expectations of nursing home administrator licensing examinations.
Prereq: HLAD310 or HLAD510 and senior standing.
- HLAD477/478/479 Special Topics** 1/2/3 hrs
For seniors. Topics included will depend upon the interests of the students and the faculty member's field of specialization. Topics generally include planning, regulation, and issues of special populations such as the homeless and prisoners.
Prereq: department permission
- HLAD480 Internship Seminar in Health Administration** 2 hrs
Seminar for those students taking an internship to provide a forum for the exchange of ideas and experiences.
Prereq: HLAD310 and department permission
- HLAD488 Internship** 6 hrs
Internship to provide formally structured and directed work experience to assist in integrating classroom learning with professional perspectives and working requirements.
Prereq: Program permission, concurrent enrollment in HLAD480
- HLAD497/498/499 Independent Study** 1/2/3 hrs
Under the supervision of a health administration faculty member, study in subjects not covered in other course offerings, or advanced study in areas of special interest to the student.
Prereq: program permission

Health Education Courses (HLED)

HLED130 Healthy Sexuality 3 hrs
This course examines a variety of topics and issues related to healthy sexuality. This is an elective course which is targeted towards freshmen. Methods include lecture, discussion, individual and group learning activities as well as use of the Internet.

HLED177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

HLED210 Standard American Red Cross First Aid 2 hrs
For all students interested in accident prevention and in the development of the knowledge and skills essential for the immediate care of the suddenly ill or injured. Readings, lectures and practical work. Certificates for Standard first aid and for cardiopulmonary resuscitation are awarded upon successful completion of the requirements for each.

HLED250 Communicable and Noncommunicable Diseases 3 hrs
This course will introduce students to common communicable and noncommunicable diseases. Identifying risk factors and prevention strategies will be emphasized. Methods include lecture, discussion, small group activities and the use of Web resources.

HLED270 Principles of Health Education 3 hrs
This course will provide students with an understanding of the professional roles and competencies of the health educator. Course content will address professional development, code of ethics, application of health education theory and recommendations for practice. Methods will include: lecture, student presentations, cooperative learning and observation of professional practice.

HLED277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

HLED302 From Host to Host: The Communicable Diseases 1 hr
Various types of communicable diseases — childhood and young adulthood, skin, upper respiratory, gastrointestinal and sexually transmitted—their causes, modes of transmission, signs and symptoms, treatment, complications and means of control. Lectures, discussions, readings and audio-visual materials.

HLED305 Current Health Issues I 3 hrs
This course offers a broad overview of several health education issues, including consumer health education, environmental health education, interna-

tional injury, unintentional injury and emotional health. The course is intended for those entering the health education profession. Methods include lecture, discussion, active learning projects and advocacy.

HLED315 Current Health Issues II 3 hrs
This course offers a broad overview of several health education issues, physical activity, nutrition, dental health and the prevention of communicable and noncommunicable disease. The course is intended for those entering the health education profession. Methods include lecture, discussion, active learning projects and developing Web resources.

HLED320 Health Education in the Elementary Grades 2 hrs
This course is for students preparing to teach primary and intermediate grades. It focuses on the eight-component Coordinated School Health Program (CSHP) and how teachers can utilize this program for health promotion and disease prevention for their students. Methods include lecture, discussion and the use of Web resources.
Prereq: sophomore standing; admission to the teacher education program

HLED325 Instructional Skills and Strategies for Health Education 3 hrs
This course is designed to prepare health minors to plan and implement instructional programs of quality comprehensive health education. Emphasis will be placed on development of materials as well as methods and strategies used to effectively teach K–12 health education. Methods include: lecture, cooperative learning, student presentations and peer evaluation.
Prereq: HLED270 and HLED305 or HLED315

HLED340 Health Education and Nutrition: Enhancing Health and Fitness 3 hrs
This course offers a broad overview of nutrition and its application to enhancing healthy lifestyles. This course is intended for those entering health education or fitness-related fields who will have responsibility for educating future students or clients. Methods include lectures, discussion, personal dietary analysis and the use of Web resources.

HLED350 Scientific Foundations in Health Education 3 hrs
This course will familiarize students with the scientific foundations of disease prevention and health promotion, focusing on risk and protective factors for leading causes of death and disability. This course is designed for health minors. Methods include lectures, discussion, personal health risk analysis and the use of Web resources.

HLED355 Health Education Program Planning 3 hrs
This course is designed to prepare health minors to understand and develop the skills necessary to identify health needs, plan, implement and evaluate health education programs in the schools and in the community. Methods include: lecture, cooperative learning and student presentations.
Prereq: HLED270 and HLED305 or HLED315

HLED377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

HLED380 Psychosocial Health and Service Learning 3 hrs
The mental/intellectual, psychological/emotional, social and spiritual dimensions of health will be explored as they affect the health of the human being; specifically to physiological functioning. Students will explore self-assessment for aspects of their psychosocial health and complete a service-learning project.
Prereq: HLED350

HLED399 Teaching about AIDS 1 hr
A course for prospective teachers, nurses or others who want to examine the issues pertaining to teaching about AIDS prevention. Includes curriculum, methods and resources.
Prereq: one course in AIDS or department permission

HLED402 Selecting Health Products and Services 3 hrs
The development of skills in making wise selections of health products and services. Characteristics of the health consumer, consumer protection agencies and laws, quackery, evaluation of health products and services.
Prereq: sophomore standing

HLED420 Health and Aging 3 hrs
A study of some of the major physiological aspects of aging. A review of the basic systemic anatomy and physiology necessary to understand the major aspects of biological aging and the chronic diseases associated with aging. For the general student.
Prereq: sophomore standing

HLED450 Health Education Assessment 3 hrs
This course provides an introduction to the use of assessment strategies for health education. Methods include lecture, discussion and active learning projects.
Prereq: HLED270, HLED325 and HLED305 or HLED315

HLED460 Concepts in Sexuality Education 3 hrs
This course examines the biological and behavioral dynamics of human sexuality and sexuality education with the identification and examination of contemporary issues. Emphasis will be placed on sexuality education in schools and the community. Methods include: lecture, small group discussion, computer applications and student presentations.

HLED477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

**HLED480 Stress Management
for Teachers** 1 hr

This course will introduce students to the relationship between stress and health. Stress management techniques will be emphasized. Methods include lectures, discussion, cooperative learning strategies, personal exploration, lesson plan creation and using Web resources.

**HLED481 Life Loss Education
for Teachers** 1 hr

This course is designed to familiarize teachers and preservice teachers with the skills, resources and activities needed to assist the school age child with the issues of loss, grief and trauma. Methods include; lecture, discussion, self-assessment, cooperative group activities, role-play and the World Wide Web.

**HLED482 Conflict
Resolution for Teachers** 1 hr

This course is designed to familiarize teachers and preservice teachers with the skills needed for healthy and peaceful resolution of conflict. Methods include; lecture, discussion, self-assessment, cooperative group activities, role-play and the World Wide Web.

HLED490 Drug Use and Abuse 3 hrs

This course offers a broad overview of drug use. Historical perspectives of current problems, pharmacology of drugs commonly used and abused, physiological and psychological factors related to abuse, substance abuse prevention programs, treatment and drugs and the law are all addressed. Methods include: lecture, small group discussion, student presentations.

**HLED495 Health Education
for Diverse Populations** 3 hrs

This course is designed to help students identify, and develop, effective health education programming that will lend to the reduction of health disparities which exist in diverse populations. Methods will include lecture, discussion and classroom activities designed to enhance application of course content.

**HLED497/498/499
Directed Study** 1/2/3 hrs

Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above, and who have completed the appropriate background courses.

Prereq: department permission

Hotel and Restaurant Management Courses (HRM)

**HRM103 Introduction to
the Hospitality Industry** 3 hrs

This is a course designed to expose the hospitality undergraduate to the food service and lodging industries. It covers an introduction to the various segments of the food service industry and lodging industry. Career choices in food service and lodging industries will also be discussed.

**HRM150 Sanitation in
the Hospitality Industry** 2 hrs

Management of basic sanitation in food-service and lodging facilities. Meets specifications required for National Institute for the Food Service Industry certification.

HRM177/178/179 Special Topics 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

HRM180 Food Production 3 hrs

Study of kitchen sanitation and safety, food preparation and storage. Includes menu design based on customer needs and preparation of final buffet.

Prereq: HRM150 and admission to the Hotel and Restaurant Management program

HRM251 Meal Service Management 3 hrs

Theories, principles and skills for food and beverage service in institutional, commercial and resort properties. Supervisory techniques and training styles effective for food service.

**HRM268 Hotel Operations
Management** 3 hrs

This course provides a systematic approach to hotel operations including front office and housekeeping operations. Topics covered include reservation processes, revenue management, customer relations and an overview of housekeeping management.

Prereq: Sophomore Standing

**HRM270 People Skills for
the Hospitality Industry** 3 hrs

Applied approach to encourage the improvement of human relation skills. Addresses personal and professional skills in human relations and encourages the improvement of human interactions. Focused on efforts to enhance the quality of interactions between the service provider and customer/client.

HRM277/278/279 Special Topics 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

**HRM287/288/289 Cooperative
Education in Hotel and
Restaurant Management** 1/2/3 hrs

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit

hours determined by program area and academic adviser. *Offered on credit/no-credit basis only.*

Prereq: approval of the Cooperative Education Office and department permission

**HRM330 Hotel and Restaurant
Management** 3 hrs

This course explores the issues related to managing hotels and restaurants using computer technology. Principles of networking, security, and databases provide the basis for understanding how computer technology is used to make reservations, manage inventory, process food orders, manage facilities and market over the Internet.

Prereq: STS201 or BMMT201 or STS201 and junior standing.

**HRM340 Cost Controls in
the Hospitality Industry** 3 hrs

Techniques used by hospitality managers to control food, equipment, labor and operating costs. Purchasing, labor and pilferage controls and fiscal management.

Prereq: MATH110 or higher.

**HRM350 Lodging
Facilities Management** 3 hrs

Organization and management of operational departments and functional areas involved in the operation of various types of lodging properties. Planning and control systems, especially physical, mechanical, engineering and electrical systems.

**HRM360 Franchising and
Contract Management** 3 hrs

This course covers franchise operations from franchisor and owner/operator perspectives regarding product/service offering, contract options and evaluation of relationship requirements. In addition, responsibilities and advantages of contract management in food-service and lodging establishments will be discussed.

**HRM376 Legal Aspects of
the Hospitality Industry** 3 hrs

An introduction to the rights and responsibilities that the law grants to or imposes upon hospitality managers is covered in this class. In addition, illustrations of possible consequences of failure to comply with legal obligations are covered.

Prereq: three courses in major

HRM377/378/379 Special Topics 1/2/3 hrs

An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

**HRM387/388/389 Cooperative
Education in Hotel and
Restaurant Management** 1/2/3 hrs

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. *Offered on credit/no-credit basis only.*

Prereq: approval of the Cooperative Education Office and department permission

HRM396 Club and Resort Management 3 hrs
Examination of historical background and development of clubs and administrative procedures typically practiced. Discussion of goals and objectives of clubs, governance structures, buildings and facilities operations plus programming components including food and beverages operations, golf, tennis and pool management. Accounting and finance issues of clubs and marketing strategies are studied.
Prereq: three courses in major

HRM410 Human Resource Issues in the Hospitality Industry 3 hrs
Hotel and restaurant industry issues related to the administration of personnel with emphasis on strategies for successful recruitment, employment and retention of employees, particularly teen-aged, senior, immigrant and disabled candidates. Includes worker-environment fit, motivation of minimum-wage employees and general legal issues relevant to personnel laws in this industry.
Prereq: MGMT384

HRM420 Quality Service Management 3 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.
Prereq: HRM289 and HRM268

HRM430 Seminar in Hospitality Management 3 hrs
Current topics in hospitality management will be covered along with professional development topics related to finding and obtaining a position upon graduation. The development and implementation of a professional or community project will be included in the course.
Prereq: senior hospitality management major

HRM441 Commercial Purchasing 3 hrs
Study of principles and techniques applicable to purchasing with emphasis on selection and specification requirements for food, supplies, equipment and contract services.
Coreq: HRM180 and HRM340

HRM450 Meetings and Events Management 3 hrs
Overview of meeting planning, and events management with emphasis on defining the management of events. Discussion of components of various types of events, negotiating contracts, facilities, costing, support services and legal issues will be covered. Students will be required to assist with several events planned during the semester.
Prereq: HRM180, HRM21, and senior standing

HRM470 Hospitality Industry Marketing 3 hrs
This course covers basic knowledge for developing, implementing and evaluating strategic marketing plans for hospitality properties. Principles of service marketing are covered as they apply to the hospitality industry.

HRM475 International Hospitality Management 3 hrs
This course is focused on providing a better understanding and deeper appreciation of management and marketing applications within a globalized context. The course presents a systematic approach to preparing students for leadership roles in tomorrow's worldwide lodging industry.
Prereq: HRM470

HRM477/478/479 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

HRM480 Gaming and Casino Management 3 hrs
This course provides an overview of gaming and casino operations and management. Topics include gaming trends in the United States and the world, casino hotel organizational structure, government regulations and casino games. Also covered are the practices and concerns associated with casino management including staffing, controls, security, marketing and entertainment.

HRM496 Strategies in Hospitality Management 3 hrs
Strategies for assessing, planning, implementation, evaluation and training in hospitality operations will be addressed.
Prereq: senior hospitality management major, HRM410 and HRM470

HRM497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Information Assurance Courses (IA)

IA103 Information Security Overview 3 hrs
A study of security in both the voice and data networks and an examination of the security issues associated with the movement toward a convergence of the two infrastructures. Topics include voice and data network connectivity, modem security, VOIP security, wireless security, cryptography, intrusion detection systems, voice and data firewalls, malicious software, information operations and warfare, and denial of service attacks.

IA177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IA202 Risk-Vulnerability Analysis 3 hrs
Tools, techniques, and methodologies in performing computer system and network security vulnerability-risk analyses. "Security best practices" and audit requirements for specific environments will

be studied. Topics to be covered include internal and external penetration tests, wireless security technology, risk and analysis methodology, and security audits.

IA277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IA285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

IA325 Cyber Crime Investigation I 3 hrs
This course is part one of a two sequence course of study. It is designed to prepare students to become effective cyber crime investigators. The course examines the basic steps required in hardware identification, TCP-IP, rules of electronic evidence, DOS, network investigation, case management and intrusion detection.
Prereq: sophomore standing

IA326 Cyber Crime Investigation II 3 hrs
Intensive hands on investigation of computer related crime designed for the professional electronic crime investigator. The course will focus on Internet crimes, fraud investigation, malicious logic, encryption and intrusion detection involving hacking networks and software. This is the second part of two semester course offering.
Prereq: IA325 Cyber crime Investigation I

IA327 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 must comply with special admission requirements prior to taking this course.
Prereq: IA325, junior standing.

IA328 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: IA327, sophomore standing.

IA329 Policy Development in Information Assurance 3 hrs
This course serves the essential aspects for developing sound information security policy. Organizational objectives, threats, risk mitigation and cost-benefit analysis will be explored. The student will utilize industry accepted methodologies to

create practical security policy that will communicate the organization's asset protection objectives.
Prereq: sophomore standing.

IA377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IA387 Cooperative Education 3 hrs

IA413 Introduction to Research in Information Assurance 3 hrs
An introduction to the conduct of studies in information and network assurance and security, including the reading of published research studies, selected approaches used for research, and formulation of researchable questions. Students will prepare a proposal for the study to be completed in IA414.

IA414 Applied Research Project 3 hrs
Students will conduct and write results of the research study proposed in IA413, Foundations of Information Assurance Research. This includes modifying any aspects of the methods of the study that may be necessary. The final results will be prepared and presented according to guidelines of an appropriate style manual.
Prereq: IA413

IA477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IA487 Cooperative Education 3 hrs

IA497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

International Business Courses (IB)

IB210 Fundamentals of Global Business 3 hrs
Focuses on the globalization phenomenon and its impact on business. Critical country factors such as economic, political, legal, social and cultural factors as well as developmental issues of technology, environment and infrastructure and their relevance in global business will be discussed. The course also looks at the integrated and interdependent nature of business relations among nations and people. It examines components of global business such as global trade and foreign direct investment.

IB277/278/279 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

IB370 International Business Ethics 1.5 hrs
This course examines business ethics as applied internationally. The course focuses on compliance with laws mandating ethical standards in international business situations; business ethics as applied globally relative to different cultures and countries; and global corporate social responsibility. *Note: IB370 must be taken in conjunction with a section of IB375. Taken together, the two sections will total 3 credit hours.*
Concurrent Prereq: IB375

IB375 Doing Business in Countries/Regions 1.5 hrs
This seminar addresses how to conduct business in the indicated region or country, addressing its specific business environment, culture and business operations, using U.S. corporate practice as the point of comparison. The central purpose of this course is to provide a practical basis for effective business practice for the business person involved in the designated market. The subject nation or region rotates (e.g., doing business in Germany; doing business in Japan, etc.), although the structure for the course remains consistent. In this way, students approach doing business in several nations or regions using a common frame or reference. *Note: IB375 must be taken in conjunction with either a section of IB370 or another section of IB375. Taken together, the two sections will total 3 credit hours.*
Prereq: permission from the IB director
Concurrent Prereq: IB370 or IB375

Industrial Distribution Courses (ID)

ID140 Introduction to Wholesale Distribution 3 hrs
This course is an introduction to wholesale distribution. Students will explore the history and theory of wholesaling and its impact on today's economy. Through lectures, discussions, presentations by industry experts and field experiences, students will examine the various industries and supply channels and will develop an understanding of wholesale distribution.

ID177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ID240 Profit Strategies in Distribution 3 hrs
Explanation of the terms related to profits and markup, calculation of profit, discounts, markups, identification and interpretation of profitability ratios, and the distribution of financial resources.

ID277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ID285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

ID340 Relationships in Wholesaling 3 hrs
Analysis of major industries and professional trade associations, and their interaction within the marketing channel. Emphasis will be placed on the relationship between trade associations and industry, elements of the marketing channel (manufacturer, distributor, customer and the employer and employee).

ID345 Industrial Direct Response 3 hrs
The course focuses on strategies, processes, and techniques used to elicit industrial sales and develop markets by distributors. Students will examine the tools various "key" industry leaders use to penetrate the industrial market. Through case study and field experience, the students will be able to problem solve and provide cost-effective solutions to industry concerns.

ID346 Industrial Climate 3 hrs
Focus will be on various "key" industries that makeup the wholesale market. Manufacturing and the tiered supply base, HVAC, electrical, electronic, abrasives and cutting tools, fluid power, fasteners, safety and security equipment, paper, sporting goods, clothing etc. will be areas of concentration with emphasis on the role distributors play in the process.

ID377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ID387 Co-operative Education 3 hrs

ID391 Wholesale Account Development 3 hrs
An in-depth study into the processes and techniques involved in acquiring and developing industrial accounts from the distributor's and the manufacturer's point of view. The course will develop practical and effectual skills in the area of advanced industrial wholesale account development. Guest lectures by manufacturers' representatives and from purchasing agents will augment the course.

ID440 Inventory Strategies in Distribution 3 hrs
An examination of the wholesale inventory management problem. The interrelationship between physical inventory, profitability and customer service will be explored.

ID444 Quality Planning in Distribution 3 hrs
Wholesale distributors are moving toward a total commitment to the philosophy of continuous improvement with zero errors as their ultimate goal. The course explores the quality assurance movement as it applies to wholesalers.

ID448 Wholesale Policy and Distribution 3 hrs
Wholesale policies used to support supply integration from the manufacturers to the end users will be examined. The balance of power between the manufacturers and distributors has changed significantly. This course will examine those changes and the effect they are having in today's economy through an analysis of sound principles/policies that are utilized by industry leaders.

ID477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ID487 Co-operative Education 3 hrs

ID497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Interior Design Courses (IDE)

IDE110 Interior Design Studio I 4 hrs
Introduction to technical drawing techniques, interior construction processes and construction materials used in interior design. Emphasis on graphic communication.
Prereq: interior design majors/minors only

IDE111 Human Factors and Special Needs 2 hrs
Introduction to the principles of ergonomics and anthropometrics as they influence the design of interior environments. Emphasis: human factors, universal design and special-user needs as they impact interior design practice.
Prereq or Coreq: IDE110

IDE120 Interior Design Studio II 4 hrs
Development of interior design graphic presentation skills. Emphasis on sketching, delineation, axonometric and perspective drawing, and rendering techniques.
Prereq: interior design majors/minors only, a grade of a B- or better in IDE110

IDE121 Interior Design Materials and Components 2 hrs
Investigation of characteristics, properties, and uses of materials and components specified by the interior designer. Emphasis: interior finishes and interior furnishings.

IDE122 Design Theory II 2 hrs
Introduction to environment, behavior and psycho-sociological theories as they apply to interior design. Emphasis: perception, color theory, effects of light and environment/behavior theories as they apply to the design of interior environments.
Prereq: a grade of a B- or better in IDE131

IDE131 Design Theory I 2 hrs
Introduction to tasks and responsibilities of an interior designer. Emphasis: design theories relating to principles and elements, space, proportion and scale, space planning and the design process.

IDE177/178/179 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

IDE208 Introduction to Basic Design 3 hrs
Application of the basic principles and concepts of design as they pertain to the relationship between contemporary human needs and environmental needs. Color theory; functional and creative interior design. *Non-majors only.*

IDE210 Interior Design Studio III 4 hrs
Introduction to interior design process. Emphasis: creativity, programming, concept development, space planning, design development, and communication skills for introductory-level residential and nonresidential design.
Prereq: a grade of B- or better in required 1st year IDE courses, interior design majors/minors only

IDE213 Computers for Interior Design I 2 hrs
Introduction to the use of computers in interior design. Emphasis: two-dimensional computer aided design.
Prereq: a grade of B- or better in IDE110

IDE218 History of Interiors: Ancient-1800 2 hrs
Chronological survey of interior design from ancient times through the mid-19th century. Emphasis on design, function, construction and evolution of interior environments and the sociological, psychological and cultural factors that influenced historical interiors, furniture, accessories and ornamental design.

IDE220 Interior Design Studio IV 4 hrs
Execution of design problems using design processes to integrate both physiological and socio-psychological user needs with the creative and functional design of interior environments. Emphasis on analysis, synthesis, creativity and presentation of three-dimensional solutions to intermediate-level residential and contract design problems.
Prereq: a grade of B- or better in IDE210, interior design majors/minors only

IDE224 Interior Building Codes 2 hrs
Examination of the codes and laws affecting the interior designer and the built environment. Introduction to the code check process and review of ADA guidelines.
Prereq: a grade of C or better in IDE110.

IDE228 History of Interiors: 1800-Present 2 hrs
Chronological survey of interior design from the mid-19th century through the present. Emphasis on design, function, construction and evolution of interior environments and the sociological, psychological and cultural factors that influenced interior environments.
Prereq: a grade of B- or better in IDE218

IDE277/278/279 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

IDE310 Interior Design Studio V 4 hrs
Application of the design process to medium scale project focusing on physiological, socio-psychological, functional and aesthetic elements and their relationship to user needs.
Prereq: successfully complete 2nd year review, department permission

IDE314 Computers for Interior Design II 2 hrs
Advanced computer aided design techniques. Emphasis: three-dimensional drawing, graphics and presentation software.
Prereq: successfully complete 2nd year review, department permission

IDE317 Lighting for Interiors 2 hrs
Introduction to lighting design for interior environments. Emphasis on lighting design fundamentals, lighting design principles and theories of lighting design, the lighting design process and methods and familiarity of light sources and energy considerations.
Prereq: a grade of B- or better in IDE220

IDE320 Interior Design Studio VI 4 hrs
Application of the interior design process to medium scale project focusing on physiological, socio-psychological, functional and aesthetic elements and their relationship to user needs.
Prereq: a grade of C+ or better in IDE310, IDE317, and IDE314

IDE322 Interior Design Space Planning and Specification 2 hrs
Space planning and specification techniques for interiors. Emphasis: space planning and specification of nonresidential environments and the integration of space planning with electrical, acoustical, mechanical and lighting systems within the built environment.
Prereq: a grade of B- or better in IDE220

IDE323 Internship Preparation 2 hrs
Development of communication tools required for interior design internship placement. Emphasis: preparation of portfolio and resume, and development of interviewing techniques.
Prereq or Coreq: IDE320

IDE377/378/379 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

IDE410 Interior Design Studio VII 4 hrs
Application of the interior design process in solving a large scale project focusing on historic preservation, restoration and adaptive reuse. Consideration of the physiological, socio-psychological, functional and aesthetic elements to their relationship to user needs.
Prereq: a grade of C+ or better in required 3rd year classes

IDE411 Internship in Interior Design 1 hrs
Supervised work experience in the interior design field. Emphasis: professional competency, professional ethics and self-evaluation.
Prereq: a grade of C+ or better in required 3rd year classes

IDE420 Interior Design Studio VIII 4 hrs
Application of the interior design process in solving a comprehensive large scale and complex interior design project focusing on physiological, socio-psychological, functional and aesthetic elements and their relationship to user needs.
Prereq: a grade of C+ or better in IDE310

IDE422 Professional Practice in Interior Design 2 hrs
Examination of business principles and practices as applied in the interior design field. Emphasis: business organization types, marketing interior design services, managing interior design firms, managing interior design projects, bidding process and liability issues.
Prereq: a grade of C+ or better in IDE411

IDE477/478/479 Special Topics 1/2/3 hrs
An experimental course designed to investigate specific topics of concern in specialization areas.
Prereq: department permission

IDE497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

College of Health and Human Services Courses (IHHS)

IHHS110/RECR110 Rediscovering Your Creativity 1hr
This course is designed to develop creative problem solving and idea-generating abilities through a review of applied research. In addition, a series of in-class exercises will be facilitated and designed to enhanced latent creative abilities.

IHHS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

IHHS226 Computers for Health and Human Services 3 hrs
This interdisciplinary computer literacy course will introduce students to computers and their applications in health and human services. Students will learn about computers and computer languages. This course will include applications of computer technology to direct services for clients as well as the use of computers to manage work.

IHHS260 Aging to Infancy: A Life Course Retrospective 3 hrs
The life course perspective calls attention to human development and aging as a lifelong process, the role of human agency, timing and interdependence of lives, and their historical time and place. Ethnicity, gender, sexual orientation, socioeconomic issues and the spheres of education, work and leisure are also considered.

IHHS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IHHS377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IHHS477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IHHS497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Information Systems Courses (IS)

IS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IS215 End-User Computing 3 hrs
Computers are being used more extensively by managers and professionals. This revolution is

known by the name "End-User Computing" or EUC. Students learn traditional information systems, and business problem-solving. In addition, a wide-range of applications including decision support systems, executive information systems, Non-clerical Office Automation, Data Communications, and local area networks, are covered. These applications cover all the functional areas of businesses. Course work includes conceptual material as well as laboratory material.

IS219 File Processing and COBOL Programming 3 hrs
COBOL programming is an important skill for business application developers. In this class, students will learn to program in COBOL while also learning the basic algorithms for producing reports with multiple control breaks and for processing sequential and random files. All students will design, write, debug and test COBOL programs using good design techniques and software engineering principles. Intended for computer information systems majors and others.

IS247 Introduction to Web Application Development 3 hrs
This course introduces students to the tools and techniques used for building Web-based applications. Students will gain an understanding in the fundamental workings of the Web. Students will be taught how to develop Web applications using client-side tools such as HTML and JavaScript and server-side tools such as ASP.

IS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

IS280 Introduction to Expert Systems in Business 3 hrs
This course covers concepts of decision support systems and expert systems as they are applied to practical business problems. Students will learn methods of artificial intelligence and decision analysis, and gain practical experience using DSS and AI software tools for designing business solutions.
Prereq: IS215

IS315 Object-Oriented Application Development 3 hrs
This course provides an introduction to object-oriented programming. The course uses an application driven and step-by-step tutorial approach to teach students the basics of programming. It enables students to create applications and components ranging from services, business objects to system-level applications. The course gives students the foundation in programming principles.
Prereq: IS247

IS320 Business Data Communications and Computer Networks 3 hrs
This course discusses the technologies and applications of telecommunications and networking. Topics include telecommunications regulation and standards, network operating systems, routers, infrastructure planning and operation of orga-

nizational telecommunication networks as well as management and control of internet servers and mobile systems.

Prereq: IS215

IS350 Enterprise Resource Planning 3 hrs

This course facilitates students to understand what an enterprise resource planning (ERP) system is and how the ERP system can be used for an organization. Students will learn how to configure ERP systems. Also, students will learn how to build an ERP system similar to those found in industry.

Prereq: IS215

IS375 Advanced Software Design and Programming 3 hrs

Software development methods and tools are constantly changing, and it is imperative that developers keep up with recent trends. This course concentrates on creating real-world programs using the latest tools and techniques. Students will gain practical experience in various aspects of programming, including graphic interfaces, database manipulation, object-oriented techniques and internetworking. In this project-oriented course students will be exposed to modern development environments, and will build on the skills learned in the earlier programming classes.

Prereq: IS315

IS377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

IS380 Introduction to Databases 3 hrs

This course covers basic concepts of database design and implementation, primarily focusing on desktop database applications. This is a hands-on, practical course concentrating on use of desktop DBMS software. Topics covered include: overview of data models, introduction to SQL and QBE, practical applications of database technology.

Prereq: IS215

IS387 Cooperative Education in Information Systems 3 hrs

Four months of full-time employment at a business or public organization to impart practical experience in computer information systems disciplines. *Offered on a credit/no-credit basis for general elective credit only. Admittance by application only.*

Prereq: completion of three hours in computer information systems area and department permission

IS410 Business Intelligence 3 hrs

Business intelligence is the user-centered iterative process of accessing data (ideally stored in the data warehouse) and analyzing it to derive insights, draw conclusions and communicate finding that support an enterprise's decision-making processes. This course includes topics that discuss technologies and applications for front-end analytical tools, on-report analysis, ad hoc query and reporting, data warehouse, online analytical processing, enterprise portals, data visualization and data mining.

Prereq: IS380 or IS215 and department permission

IS413 Information Technology Infrastructure and Security 3 hrs

This course explores business, conceptual and technological aspects of information systems infrastructure and security. The services and technologies presented in the course include directory, Web and application servers, messaging, portal and wireless services and technologies. Security issues such as security protocols, cryptographic systems firewalls and intrusion detection systems, are also discussed.

Prereq: IS320

IS416 System Software Administration 3 hrs

This course introduces students to the features and capabilities of a multi-user operating system through "hands-on" exercises. Topics include: functions of an operating system, operating system commands, filters, pipes, redirection, file system structure, text editors, file processing, file security, shells, Internet communication and file transfers, shell programming and system administration.

Prereq: IS247 and IS320

IS417 Systems Analysis and Design 3 hrs

This course introduces students to processes, principles, guidelines, tools and techniques for systems analysis and design of information systems. Topics include information systems development life cycle, requirements gathering, methods and techniques for system modeling, user interface design and tools for automation of the system analysis and design. The major thrust of the course is to aid the communication process that must take place between the system developers and users. This is facilitated by the use of projects as a vehicle for effectively communicating the content of this course.

Prereq: IS315

IS421 Enterprise Database Application 3 hrs

This course covers advanced SQL, normalization, detailed discussion of relational data models, hierarchical models and network models, client server databases (front-end and back-end), distributed DBMS and data warehousing. It involves intensive use of advanced DBMS tools.

Prereq: IS247 and IS380

IS425 Information Systems Project Management 3 hrs

Students will learn, individually and in teams, concepts and contemporary practices of managing IS projects, engaging them in realistic examples of project review and selection, planning based on work breakdown structure, defining and allocating resources, resolving uncertainties in scheduling, taking appropriate corrective measures when faced with constraints on human and material resources, managing costs and taking necessary steps to monitor progress, control operations and engage in project redirection as needed.

Prereq: IS215

IS426 Advanced Structured COBOL Programming 3 hrs

Students work in teams developing integrated information systems in structured COBOL. Searches, reporting, subprograms, random files, indexed sequential files, various sorting routines, debug-

ging techniques, programming style, optimization techniques, structured and modular programming concepts, transferability and portability strategies, and documentation, including writing program specifications and users' manuals.

Prereq: IS417

IS442 Information Resource Management 3 hrs

Most organizations use computers for operations, control and planning, and for office automation. While computers facilitate and enhance the functioning of organizations, they also add to the responsibilities of managers. In this course, students learn how to acquire, organize, monitor and control information resources. The course also discusses problems unique to the management of information resources.

Prereq: nine hours of IS courses, not including IS215

IS449 Information Systems Integration 3 hrs

This is a capstone course. The course introduces concepts, technologies and methodologies currently used for building information systems through selection and integration of available components and applications. Students will also learn how to customize available components and build new components when required. The course covers enterprise application integration (EAI) and business-to-business (B2B) integration.

Prereq: IS413, IS417 and IS421

IS477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

IS487 Cooperative Education in Information Systems 3 hrs

Four months of full-time employment at a business or public organization to impart a practical experience in computer information systems disciplines. *Offered on a credit/no-credit basis for general elective credit only. Admittance by application only.*

Prereq: IS387 and department permission

IS489 Internship 3 hrs

Directed full-time work experience in the business computer systems units of a business organization. *This course may be repeated for a maximum of six hours.*

Prereq: major and department permission

IS497/498/499 Independent Study 1/2/3 hrs

Directed study of a problem or group of problems in production systems or management science.

Prereq: department permission

Information Security Courses (ISEC)

ISEC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ISEC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ISEC285/286/287 Preprofessional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

ISEC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ISEC387 Cooperative Education 3 hrs

ISEC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

ISEC487 Cooperative Education 3 hrs

ISEC497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Japanese Courses (JPNE)

JPNE121 Beginning Japanese I 5 hrs
Practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. Laboratory attendance required.

JPNE122 Beginning Japanese II 5 hrs
Instruction includes practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. Laboratory attendance required.
Prereq: JPNE121 or by placement examination

JPNE177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JPNE211 Intermediate Japanese I 5 hrs
Practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. Laboratory attendance required.
Prereq: JPNE122 or by placement examination

JPNE212 Intermediate Japanese II 5 hrs
Instruction includes practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. Laboratory attendance required.
Prereq: JPNE211 or by placement examination

JPNE261 Introduction to Professional Language Study 3 hrs
This course introduces students to the application of professional languages in a variety of settings focusing on oral and written communication. Students acquire the vocabulary and phrases of basic professional interactions, learn to translate documents of different professions and acquire basic interpreting techniques. Students with interests in other careers will find the course helpful and they can complete special projects.
Prereq: JPNE121, JPNE122, JPNE211, JPNE212

JPNE277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JPNE343 Japanese Composition 3 hrs
Writing for a variety of purposes and a review of kanji (ideographs) and grammar constitute the core of the course. Frequent written assignments.
Prereq: JPNE212 or department permission

JPNE344 Japanese Conversation 3 hrs
Emphasizes acquisition of an active vocabulary for daily life and greater oral facility. Intensive study of casual or familiar levels of speech as well as polite forms and honorifics. *About 80 percent in Japanese.*
Prereq: JPNE212 or department permission

JPNE361 Japanese for International Trade 3 hrs
Introduction to Japanese business culture and business communication in Japanese. The course provides opportunity for comparative analysis of American and Japanese cultural patterns in business settings. *About 50 percent in Japanese.*
Prereq: JPNE343, JPNE344 or department permission

JPNE377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JPNE444 Advanced Japanese Conversation 3 hrs
The course aims to develop advanced conversational fluency. Students are expected to participate actively in group discussion. Instruction includes extensive vocabulary building for discussing a variety of subjects. *In Japanese.*
Prereq: JPNE343, JPNE344 or department permission

JPNE445 Survey of Japanese Literature 3 hrs
Guides students to an understanding of the value and role of literary and cultural texts and uses them to interpret and recognize distinctive Japanese cultural perspectives over time.
Prereq: JPNE444

JPNE446 Business Japanese I 3 hrs
The course aims to increase proficiency in business communication in Japanese and to develop knowledge of Japanese economy, industry and foreign trade. Extensive work on the vocabulary and idiom of Japanese economy and business. *In Japanese.*
Prereq: JPNE361 and JPNE444 or department permission

JPNE447 Business Japanese II 3 hrs
The course provides an overview of the system of organization, managerial style and personnel relations of Japanese companies. Study of business communication focuses on business correspondence and translation. *In Japanese.*
Prereq: JPNE446 or department permission.

JPNE448 Readings on Japanese Culture 3 hrs
This is a course of study designed to introduce contemporary Japanese culture and civilization through reading.
Prereq: JPNE444

JPNE477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JPNE490 Intensive Japanese Abroad 6 hrs
An intensive linguistic and cultural immersion experience of at least one academic semester duration offered in Japan. Instruction at many different levels. May be repeated for credit. *In Japanese.*

JPNE494 Seminar in Japanese Studies 3 hrs
Required of students majoring in teaching Japanese language and culture. Extensive study and discussion of issues related to Japanese society and to political and economic systems. Students are required to apply Japanese language skills in research, presentations and papers. *About 50 percent in Japanese.*
Prereq: JPNE446 or department permission

JPNE497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Journalism and Public Relations Courses (JRNL)

JRNL177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JRNL213 Introduction to the Print Media 3 hrs
An exploration into the multiple effects of print media on American popular culture and vice versa. Understanding the business of news, features, editorials, comics and other media formats. Tracking the development of contemporary media research. Learning to become critical consumers of print media. Student media research. *This course is typically offered fall and winter semesters.*

JRNL215 News Writing and Reporting 3 hrs
An introduction to newspaper reporting. Learning to gather information and to write in an approved journalistic style. Courses offer practical instruction and working exercises in interviewing, news story development, lead writing and editing skills. Substantial use of computer lab. *This course is typically offered fall, winter and spring or summer semesters.*

JRNL277/278/279 Special Topics 1/2/3 hrs
An examination of topics in journalism not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: sophomore standing

JRNL305 Editorial, Column, and Review Writing 3 hrs
Writing of interpretive articles, editorials, reviews and columns. Aimed at developing the student's critical faculties, it includes the study of public opinion and efforts to change it, the principles of argument and persuasion, and the aesthetic principles guiding cultural criticism. *This course is typically offered fall semesters.*
Prereq: JRNL215

JRNL306 Feature Writing 3 hrs
Writing of feature and interpretive articles for newspapers and magazines. Emphasis is on idea generation, research, interviewing, narrative technique and organization of longer articles. *This course is typically offered fall, winter and spring or summer semesters.*
Prereq: JRNL215

JRNL307 Copy Editing 3 hrs
Editing news articles for publication. Students learn style (Associated Press) and grammar in detail. Also study techniques for improving stories by tightening, checking accuracy and protecting against legal and ethical problems. Includes headline writing. *This course is typically offered fall, winter and spring or summer semesters.*
Prereq: JRNL215

JRNL311 Newspaper Layout and Design 3 hrs
Hands-on study of newspaper layout, design, pagination, and production. Emphasis is on presentation of the written word, photographs and graphics, using current newsroom publishing standards and software.
Prereq: JRNL215

JRNL312 Introduction to Public Relations 3 hrs
Definition, historic aspects, evolution and ethics of public relations; the practical use of public relations by corporations, not-for-profit organizations, businesses, institutions and government; correlation of written, oral and visual skills. *This course is typically offered fall, winter and spring semesters.*
Prereq: JRNL215 and CTAS124

JRNL313 History of American Journalism 3 hrs
A survey of the evolution of journalism in the United States and how journalism both has influenced and been influenced by the larger history of America. Emphasis is placed on the history of newspaper and magazine journalism and on key journalists of enduring importance. *This course is typically offered fall semesters.*
Prereq: sophomore standing

JRNL314 Writing for Public Relations 3 hrs
Practical experience in writing press releases, broadcast announcements, speeches and scripts to present a project or product; preparing brochures, newsletters, annual reports, memos and proposals; implementing public relations campaigns. *This course is typically offered fall, winter and spring semesters.*
Prereq: JRNL312

JRNL377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

JRNL387 Cooperative Education in Journalism/Public Relations 3 hrs
Employment for pay in the print media, public relations or publishing fields to provide practical experience for skills learned in the classroom. Work experiences generally are alternated with full-time attendance at the University.
Prereq: junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor.

JRNL408 Case Studies in Public Relations 3 hrs
Solving problems and managing controversy in the day-to-day pursuit of public relations; legal considerations; crisis communication; professionalism and public responsibility in public relations. *This course is typically offered fall and winter semesters.*
Prereq: JRNL314

JRNL423 Magazine Article Writing 3 hrs
A writing course to develop skills in researching, writing and marketing nonfiction articles longer and more complex than newspaper feature stories. Emphasis is on individual completion of articles of professional quality.
Prereq: ENGL328 or JRNL306

JRNL453 Advanced Reporting 3 hrs
Researching and writing news stories dealing with complex topics including courts, politics, government, finance, labor and education. Emphasis is on journalistic initiative and investigative reporting. *This course is typically offered winter semesters.*
Prereq: JRNL215

JRNL454 Contemporary Problems in Journalism 3 hrs
Emphasis on student investigation, reporting and writing on selected ethical problems in the media industry, such as conflicts between advertising and editorial content and actual or perceived conflicts of interest between journalists and people they cover. Emphasis on conducting in-depth studies of major social issues and quality of media coverage.
Prereq: junior standing

JRNL455 Journalism and the Law 3 hrs
An advanced professional course exploring issues of defamation of character, invasion of privacy, copyright, conflicts between the press and the courts, hate speech, obscenity, access to restricted government records, broadcast regulations and various forms of censorship.
Prereq: senior standing

JRNL477/478/479 Special Topics 1/2/3 hrs
An examination of topics in journalism not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: junior standing and department permission

JRNL487 Cooperative Education in Journalism/Public Relations 3 hrs
Employment for pay in the print media, public relations or publishing fields to provide practical experience for skills learned in the classroom. Work experiences generally are alternated with full-time attendance in the classroom.
Prereq: junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor

JRNL488/489/490 Internship in Journalism/Public Relations 1/2/3 hrs
Optional, practical on-the-job work experience for recommended students electing an opportunity provided by the department or finding an appropriate outside opportunity subsequently approved by the intern supervisor; paid or nonpaid. One hour credit for 10 hours work per week; two hours for 11-17 hours; three hours for 18 and above.
Prereq: junior or senior standing and recommendation of journalism professor

JRNL497/498/499 Independent Study 1/2/3 hrs
Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit

hours set) by the instructor and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.

Prereq: nine hours in the appropriate major or minor

Latin Courses (LATN)

LATN101 Beginning Latin I 3 hrs
This course introduces students to the basic vocabulary, grammar, and syntax of the Latin language with a view to the reading of Roman literature.

LATN102 Beginning Latin II 3 hrs
As a follow-up to LATN101, this course will continue a general introduction to the basic vocabulary, grammar and syntax of the Latin language with a view to the reading of Roman literature.
Prereq: LATN101

LATN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LATN201 Intermediate Latin I 3 hrs
As a follow-up to LATN101-102, this course will complete a full survey of the elements of Latin grammar and syntax. It will also introduce students to the reading of original passages of major authors, especially prose writers such as Cicero, Caesar, Sallust and Livy.
Prereq: LATN102

LATN202 Intermediate Latin II 3 hrs
As a follow-up to LATN201, this course will review basic and finer points of the grammar and syntax of ancient Latin during the reading of major authors such as Lucretius, Catullus, Virgil, Cicero, Seneca, Tacitus and Juvenal.
Prereq: LATN201

LATN277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LATN377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LATN477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LATN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Law Courses (LAW)

LAW293 Legal Environment of Business 3 hrs
The judicial system and legal procedure, crimes and torts, contractual arrangements, sales of goods and other transactions under the Uniform Commercial Code.

LAW295 Legal Research 3 hrs
The performance of research on several actual legal problems.
Prereq: LAW293

LAW350 International Business Law 3 hrs
The course will focus on international business law applicable to international business transactions. Topics covered will include comparable legal systems in the world and the law relative to 1) international sales, transport, credit and commercial agreements; 2) trade law including imports, customs, tariff regulations/agreements, regional free trade areas; 3) regulation of the marketplace including licensing, patent, advertising, sales representation, foreign investment and business formation, currency risk, anti-trust, employment and environmental law.

LAW393 Law of Business Enterprises 3 hrs
The law of forms of business enterprise and negotiable instruments. Agency, partnerships, corporations and negotiable instruments.
Prereq: LAW293 or department permission

LAW403 Employment Law 3 hrs
The legal framework within which business (or public) managers must make employment and labor relations decisions; includes laws relative to labor relations, discrimination, affirmative action, occupational health and safety, wage-hour, wrongful discharge, workers compensation, etc.

LAW411 Sports Law 3 hrs
This is a survey course that examines sports and recreation law including legal issues associated with sports, sporting events, sports related industries, sports programs, athletic education, recreation management, etc. Topics include: negligence, property and premises law, torts and criminal law, risk management, contract law, constitutional law and sports legislation.

LAW425 E-Commerce Law 3 hrs
A survey course on the basics of e-commerce law including the legal framework and issues and risks of doing e-commerce business. Topics studied include e-contracting, privacy and security, cyber-torts and crimes, jurisdiction, and dispute resolution, securities offerings, cyber-financing including banking and e-money, taxation, copyrights and trademarks.
Prereq: junior standing

LAW430 Ethics and Legal Compliance 3 hrs
A general course on ethics compliance relative to business and related professions. The course will focus on understanding and insuring both ethical and legal compliance with specific laws on topics such as employment, consumer protection, privacy, financial regulation (corporate governance and SOX), the environment and medicine.

LAW477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: LAW293

LAW497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem in business law not otherwise treated in department courses.
Prereq: department permission

Legal Assistant (Paralegal) Courses (LEGL)

LEGL177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LEGL211 Introduction to Paralegalism and Legal Terminology 3 hrs
An overview of the nature of the legal assistant (paralegal) program, with a look at the roles, opportunities, responsibilities and problems encountered. The student is introduced to areas of the law in which the legal assistant may work. Ethical considerations are addressed and legal terminology will be introduced and emphasized. Must be completed in the first 12 hours of the major. *A minimum grade of "B-" is required if taken towards the Legal Assistant (Paralegal) Program.*

LEGL212 Law Office Administration and Technology 3 hrs
This course will teach the fundamentals of law office management and organization, and introduce the student to technologies used in a typical law practice. Subjects covered include: basic principles and structure of law firm management, computerized conflict-checking, timekeeping and accounting systems, marketing issues, ethical issues, and the Michigan Code of Professional Responsibility, administrative and substantive systems in the law office and law practice technology. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: BMMT201

LEGL277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LEGL304 Legal Writing, Research and Analysis I 3 hrs
This course is designed to develop basic skills in analyzing legal problems, researching those problems and searching for legal authority. Students are also introduced to primary and secondary legal resources. Emphasis is given to preparing and writing legal memoranda. Extensive use of library law materials is required. *A minimum grade of "C+" is required if taken towards the Legal Assistant (Paralegal) Program.*
Prereq: ENGL121 and BMMT123 (majors only)

LEGL305 Advanced Legal Writing, Research and Analysis II 3 hrs
This course will build upon skills acquired in LEGL304. Students will be introduced to computerized research sources with a special emphasis on LEXIS and Westlaw. Discussion will also focus on the state appellate process. Students will learn how to prepare an appellate brief and do online legal research to complete their brief. Special emphasis will be placed on students improving their legal writing techniques. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: BMMT201 or equivalent; ENGL121; LEGL304

LEGL306 Advanced Legal Writing, Research and Analysis III 3 hrs
This course will build upon the skills learned in LEGL304 and LEGL305. Students will focus on their legal writing skills by analyzing facts in a simulated litigation experience and by drafting appropriate client and court documents. Emphasis will be on the "process" approach giving attention to the steps in reasoning that must be followed to arrive at the final product. Plain English will also be discussed. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL304 and LEGL305

LEGL311 Probate, Estates and Wills 3 hrs
The student will study the probate code and probate procedures, descendants' estates, death and inheritance taxes, and other related problems. Special attention will be given to wills and how wills are drafted. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL211

LEGL313 Family Law 3 hrs
A basic introduction to the areas of domestic law, including such subjects as divorce, adoption, abortion, parental rights, children's rights, child abuse, neglect and guardianship. The course will be directed toward the legal assistant's role in preparing court documents and other tasks of the paralegal in this area. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL211

LEGL315 Land Transaction and Real Estate for Paralegals 3 hrs
Introduction to the skills needed to assist an attorney in representing clients in real property transactions, including closings for purchase/sale of residential property; examining issues of ownership of real property; financing real property transactions; and the landlord-tenant relationship in leasing real property.
Prereq: LEGL211 or LAW293, sophomore standing

LEGL377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LEGL404 Court Rules, Forms and Drafting Contracts 3 hrs
Study will be made of Michigan court rules and court forms commonly used in the Michigan court system. Students will do problems preparing court forms for a variety of legal actions. Students will also study contract law and learn to draft documents. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL304

LEGL405 Civil Litigation, Investigation and Procedure I 3 hrs
A comprehensive survey of civil litigation and procedure. The student will be introduced to every phase of litigation starting with the filing of the lawsuit through the appellate process. The student will be expected to draw up a complaint and a number of pleadings, as well as drafting interrogatories and digesting depositions. Legal investigation will be addressed. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL404

LEGL406 Civil Litigation, Investigation and Procedure II 3 hrs
A study of the law and litigation techniques in personal injury cases. Students will become acquainted with such torts as assault, battery, false imprisonment, defamation and strict product liability. Study will be directed particularly to the fields of negligence and medical malpractice. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required.*
Prereq: LEGL405

LEGL413 The Law and the Internet 3 hrs
An in-depth examination of the law dealing with computers and the Internet, including such issues as intellectual property, electronic commerce, information privacy, freedom of expression, cybercrime and jurisdiction. Included are detailed analyses of significant legal case studies plus review of applicable federal and state legislation.

LEGL414 Legal Assistance Center Clinical Experience 3 hrs
Student work at the Washtenaw County-Eastern Michigan University Legal Assistance Center providing legal assistance to people with basic legal problems. All student work must be done under attorney supervision, and students may not en-

gage in activities that constitute the unauthorized practice of law. *Restricted to Legal Assistant (Paralegal) majors only.*
Prereq: LEGL211/304/404 and department permission. Concurrent prereq: LEGL311/313/405

LEGL415 Bankruptcy Law 3 hrs
A study will be made of the Federal Bankruptcy Code, with emphasis on Chapters 7, 11 and 13. Students will learn how to prepare the necessary papers for filing for bankruptcy.
Prereq: LEGL304

LEGL416 Legal Assistant Internship 3/4/5/6 hrs
Students work with law firms, courts, corporations, etc, for on-the-job training as a legal assistant. Each student will have a supervisor on the job and a faculty supervisor. The latter will consult with students individually or in a group meeting. A written report is required upon completion of the internship. *Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of "C" is required. Where appropriate criteria are met, cooperative education can be substituted for an internship.*
Prereq: LEGL211, LEGL304, LEGL305, LEGL404, LEGL405 and permission of instructor. Must have completed required courses in the curriculum.

LEGL477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other program offerings. Student may elect more than once.

LEGL497/498/499 Independent Study 1/2/3 hrs
Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department.

Linguistics Courses (LING)

LING177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LING201 An Introduction to Linguistics 3 hrs
An introduction to phonology, morphology, syntax, the lexicon, semantics, sociolinguistics, psycholinguistics and other concerns. *This course is typically offered fall and winter semesters.*
Prereq: sophomore standing

LING205 English Words 3 hrs
Principles of sound, form and meaning relationships facilitate the student's mastery of word structure, spelling, use and comprehension in a language science approach to the analysis of native English words and the foreign vocabulary that is frequently used in English speech and writing. Addresses linguistic, social, historical and other factors in the development of English, fostering

greater linguistic sophistication and appreciation for the richness of the English language. *This course is typically offered fall and winter semesters.*

LING277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LING310 African American Language 3 hrs
A survey of the history of African American language from African origins to the present day. Details of the structure (i.e. sounds, words, sentence and discourse patterns) of African American English and its functions in American culture, from everyday language use to its employment in literature and other verbal arts. Special attention is paid to issues resulting from contact between different language varieties and the pervasiveness of linguistic diversity in the U.S. and around the world.
Prereq: LING201, or LNGE223 or AAS101

LING322 Languages of the World 3 hrs
A survey of the variety of language and language groups of the world. Topics covered include: origins of human language, language relationships, the ways language changes and why, unusual writing systems and linguistic exotica.

LING340 Language and Culture 3 hrs
An introduction to a linguistic view of language and the ways it is influenced by the cultural and social context. Topics covered may include, but are not limited to: argots, jargon, metaphor, names, kinship systems, cross-cultural communication, ethnography of communication, dialectology and sociolinguistics, language and ethnicity, and language and gender. *This course is typically offered fall and winter semesters.*
Prereq: ANTH135 or LING201 or LNGE223

LING377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

LING401 Introduction to Linguistic Science 3 hrs
An introduction to linguistic theory and analytical procedures. Students will apply theoretical principles to problems of phonological and syntactic analysis. *This course is typically offered fall and winter semesters.*
Prereq: LING201 or LNGE223

LING402 Modern English Grammar 3 hrs
An introduction to the grammar of modern English: problems in the description and analysis of English grammar. *This course is typically offered fall and winter semesters.*
Prereq: junior standing

LING415 Women and Language 3 hrs
This course analyzes the way that gender is reflected in language structure and linguistic behavior, in both English and other languages. It will consider such topics as gender-related vocabulary and mor-

phology, gender differences in discourse styles and the question of whether gender-related language differences have neurological correlates or are exclusively social in origin.

Prereq: a 200-, 300- or 400-level LING course

LING420 Introduction to Phonetics and Phonology 3 hrs
An introduction to articulatory and acoustic phonetics and to the basic principles and methodology of phonological analysis.
Prereq: LING401

LING421 The History of the English Language 3 hrs
A study of the development of the language from its earliest stages to the present with attention to social influences as well as matters of sound, word formation and sentence structure.
Prereq: LING201 or LING401

LING425 Introduction to Syntax 3 hrs
The development of a base in syntactic theory, learning both the mechanisms of a transformational grammar and the argumentation used in syntactic analysis.
Prereq: LING401.

LING426 Topics in Linguistics 3 hrs
Advanced study in specific areas of linguistics for which the department does not regularly offer a course. The area to be studied will vary and will be determined by the field of specialization of the staff members and by student interest. This course may be taken more than once, provided the topics are different.
Prereq: a 200-, 300- or 400-level LING course

LING434 The Linguistic Analysis of Literature 3 hrs
Examination of the linguistic knowledge which allows readers to recognize certain literary effects. Consideration of point of view shift, foregrounding, narrative time movement, presupposition and other aspects of literary interpretation.
Prereq: a 200-, 300- or 400-level LING course

LING477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LING497/498/499 Independent Study 1/2/3 hrs
Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the instructor and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.
Prereq: nine hours in the appropriate major or minor

Literature Courses (LITR)

LITR100 The Reading of Literature 3 hrs
An introduction to the techniques of critical reading with equal emphasis on prose fiction, poetry and drama. Development of a fundamental understanding and enjoyment of reading. *This course is typically offered fall, winter and spring semesters.*

LITR101 The Reading of Literature: Fiction 3 hrs
Reading and critical analysis of prose fiction intended to deepen the student's understanding and enjoyment of prose fiction. *This course is typically offered fall, winter and spring semesters.*

LITR102 The Reading of Literature: Poetry 3 hrs
Reading and critical analysis of poetry intended to deepen the student's understanding and enjoyment of poetry. *This course is typically offered fall, winter and spring semesters.*

LITR103 The Reading of Literature: Drama 3 hrs
Reading and critical analysis of drama intended to deepen the student's understanding and enjoyment of drama. *This course is typically offered fall, winter and spring semesters.*

LITR106/CLAS106 Rome and America 6 hrs
A comparison of the people and culture of ancient Rome and modern America, considering individual hopes and ideals, religious beliefs and ideas about death, government, morality, love and sex. Team taught by a member of the English Department and a classicist.

These courses must be taken concurrently and satisfy two literature requirements. Note: see honors humanities courses.

LITR137 Harry Potter: Literary Allusion, Children's Literature and Popular Culture 3 hrs
Students will read novels in J.K. Rowling's *Harry Potter* series; myths, legends and folktales on which they are based; and criticism written about the novels. They will focus on literary terminology, literary allusion, literary merit and the public debates about the role of the humanities in contemporary culture.

LITR150 Humanity and Technology 3 hrs
A brief study of distinctive and influential perceptions of the impact of technology on human values just after the first Industrial Revolution, with critical emphasis on problems concerning the use of special, refined technologies. Primary readings from Thoreau, Mark Twain, Henry Adams, Aldous Huxley, Lewis Mumford and Garrett Hardin. This course satisfies one literature requirement. Note: see honors humanities courses.

LITR160 African American Literature 3 hrs
This course introduces students to the study of African American literature, thought and cul-

tural practices through an examination of the oral traditional, texts, music and visual arts of African Americans and other peoples of the African diaspora. Readings include oral narratives, fiction, poetry, drama, autobiography, political treatises and essays from 1619 to the present.

LITR161 Native American Literature 3 hrs
A course in the oral and written literatures of Native American cultures — emphasizing memoirs, essays, fiction, poetry, drama and film of the 20th and 21st centuries — examined within their cultural and historical contexts. This course will promote and understanding of traditional Native world views, as well as examine the impact of Native peoples' contact with other cultures.

LITR163 Jewish-American Literature and Culture 3 hrs
This course examines the complex position of Jews in America — considering minority status, assimilation and cultural history of Jewish population — by focusing on poetry, prose and drama that reflects awareness of both an oppressive European past and a desire to move forward in the vibrant intellectual life of the 20th and 21st centuries.

LITR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LITR181/CLAS181 The Legacy of Greece 3 hrs
An introduction to Greek epic, drama, poetry, history and philosophy, illustrating the influence of the Greek tradition on Western civilization. The literature is read in English translation. Representative examples of Greek architecture and sculpture also are examined. Team taught by a classicist and/or a member of the English Department. This course satisfies one literature requirement.
Note: see honors humanities courses.

LITR200 Literary Studies for Literature Lovers 3 hrs
An intensive introduction to poetry, fiction and drama designed to appeal to the enthusiast who loves reading literature. Especially useful for those considering majoring in literary studies or English education. Course content is thematically focused (themes vary by instructor) and covers multiple literary periods as well as writing in different styles.

LITR207 Introduction to Children's Literature 3 hrs
A concentrated reading course designed to impart the knowledge necessary for an appreciation and understanding of children's literature and its use in the schools. In addition to reading the classics and the critically acclaimed works of both fiction and nonfiction by modern writers, students will study poetry, folklore and mythology, and examine the relationship between illustration and text. Does not count toward a major or minor in curricula for teachers in junior and senior high school.
Prereq: sophomore standing and one 100-level LITR course

LITR208 Multicultural Children's Literature 3 hrs
Introduction to literature for children and young adults by and about African Americans, Asian Americans, Latinos and Native Americans, including history of multicultural writing for the young; major issues of multiculturalism; historical and cultural background of each group; and critical apparatus for the selection, interpretation, and evaluation of such literature.

LITR210 Introduction to Shakespeare 3 hrs
An introduction to at least five of Shakespeare's plays with emphasis upon the tragedies. *This course is typically offered fall and winter semesters.*
Prereq: one 100- or 200-level LITR course

LITR251 The Bible as Literature 3 hrs
Introduction to the literary study of the Bible. The Old Testament is represented chiefly by specimens of narrative and prophetic writings; the New Testament by selected incidents, parables and sayings from the life of Jesus as portrayed in the synoptic gospels. Discussion of Biblical influences upon English and American literature. *This course is typically offered fall and winter semesters.*
Prereq: one 100- or 200-level LITR course

LITR277/278/279 Special Topics 1/2/3 hrs
An examination of topics in literature not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: one 100- or 200-level LITR course

LITR309 The Development of American Literature 3 hrs
A study of American literature from colonial times to 1890, including such writers as Bradstreet, Franklin, Hawthorne, Melville, Thoreau, Emerson, Whitman, Dickinson, Twain and James. *This course is typically offered fall and winter semesters.*
Concurrent prereq: ENGL300

LITR310 Modern American Literature 3 hrs
A study of American literature from 1890 to the present, including such writers as Crane, Frost, Cather, Elliot, O'Neill, Fitzgerald, Faulkner, Hemingway, Bellow, Baldwin, O'Connor and Updike. *This course is typically offered fall and winter semesters.*
Concurrent prereq: ENGL300

LITR312 English Literature in the Middle Ages 3 hrs
A survey of Old and Middle English literature from Beowulf to Malory, tracing the themes, genres and literary techniques of early English literature. *This course is typically offered every other academic year.*
Concurrent prereq: ENGL300

LITR314 English Renaissance Prose and Poetry 1500-1660 3 hrs
Major authors from the age of Shakespeare to the close of the Renaissance, including the humanists, lyric poets, Spenser, Bacon, Donne and the metaphysicals, and Milton.
Concurrent prereq: ENGL300

LITR315 Restoration and 18th-Century Literature 3 hrs
A study of British literature from the Restoration of Charles II through the Enlightenment and French Revolution (1660-1798), including such authors as Behn, Defoe, Swift, Montagu, Equiano, Pope, Fielding, Gray, Walpole, Burney, Goldsmith and Wollstonecraft. *This course is typically offered once per academic year.*
Concurrent prereq: ENGL300

LITR316 Romantic Rebellion in Britain 1798-1832 3 hrs
A study of the shift in literary emphasis in Britain from reason to the emotions, imagination and individualism in the works of Wordsworth, Coleridge, Lamb, DeQuincey, Hazlitt, Byron, Shelley and Keats. *This course is typically offered once per academic year.*
Concurrent prereq: ENGL300

LITR317 Victorian and Edwardian Literature 1832-1914 3 hrs
A study of prose and poetry of such authors as Carlyle, Mill, Tennyson, Browning, Ruskin, Arnold, Hopkins, Swinburne, Hardy, Pater, Wilde, Kipling and others.
Concurrent prereq: ENGL300

LITR351 World Mythology 3 hrs
A study of the mythological traditions that have most significantly informed western civilization. The myths are discussed as literature and as people's attempts to understand themselves, their society and their physical environment.
Prereq: any 200-level LITR course

LITR352 Folk Literature: Ballads and Folk Tales 3 hrs
A reading course in the traditional ballads and folk tales of Europe and North America with emphasis on those that appear in children's literature. Applies toward minor in children's literature only, but may be taken as a free elective.
Prereq: any 200-level LITR course

LITR360 Recent Trends in British and American Literature 3 hrs
A study of innovations in recent British and American poetry, fiction or drama. The particular focus of the course to be taught in a given semester will be announced in the class schedule bulletin. *This course is typically offered once per academic year.*
Concurrent prereq: ENGL300

LITR361 Studies in Native American Literature 3 hrs
This course will study in-depth, the oral and written literatures of Native North American cultures, with emphasis on the authored memoirs, essays, fiction, poetry and drama of the 20th and 21st centuries. Students will become familiar with the historical, cultural and critical contexts for oral traditional and contemporary texts studied.
Concurrent prereq: ENGL300

LITR362 Studies in African American Literature 3 hrs
This course will examine the development of the African American literary tradition from its beginnings as an oral and aural art to texts written in

the 21st century. Emphasis will be on the literary movements which define the tradition. Students will become conversant with the theory, critical terminology, historical contexts and interpretive practices relevant to the study of African American literature.

Concurrent prereq: ENGL300

LITR377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

LITR400 Narrative in Literature and Film 3 hrs

A study of the aesthetic parallels in narrative technique between certain prose forms (novel, novella, romance, satire) and film as a means of enhancing verbal, visual and cultural literacy. This course will comprehend films from the origin of cinema to the present, as well as a variety of literary works from multiple periods, showing how they have worked in tandem to engender social constructs and the cultural heritage. *This course is typically offered every third academic year.*

Prereq: three 100-, 200- or 300-level LITR courses, sophomore standing.

LITR405 Shakespeare 3 hrs

A study of at least eight of the principal plays. *This course is typically offered once per academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR411 Studies in Epic and Romance 3 hrs

A critical reading of foreign (in translation) and English epics and romances (and their sources). The treatment will be both historical and comparative.

Prereq: ENGL300 and one 300-level LITR course

LITR413 The Poetry of Chaucer 3 hrs

An introduction to the major works of Chaucer: a close reading of representative poetry. *This course is typically offered once per academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR420 Studies in the British Novel 3 hrs

This course will explore the emergence and development of the novel as a popular genre in English literature, with special emphasis on the cultural, political and historical conditions that it both reflects and helps to construct. *This course is typically offered every third academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR421 Studies in the American Novel 3 hrs

A study of the American novel from its beginnings in the 19th century to the present, with particular emphasis on its development over time. *This course is typically offered once per academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR422 Studies in the Novel in Global Perspective 3 hrs

A study of the novel outside England and the United States, with particular emphasis on generic variations that reflect political and social forces

within specific contexts. *This course is typically offered fall and winter semesters.*

Prereq: ENGL300 and one 300-level LITR course

LITR430 Studies in Drama 3 hrs

A study of drama as it develops over time and is shaped by changing literary and social practices, including but not limited to the early British drama, restoration comedy, modern drama and English theatre in a global perspective. *This course is typically offered every third academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR440 Genre Studies 3 hrs

A study of the characteristics of a particular literary genre, independent of chronology, theme or author. *This course is typically offered once per academic year.*

Prereq: ENGL300 and one 300-level LITR course

LITR443/WGST443 Women in Literature 3 hrs

A study of women and their experiences as described in literature. *This course is typically offered fall and winter semesters.*

Prereq: ENGL300 and one 300-level LITR course

LITR450 Major Authors 3 hrs

An intensive study of a major literary figure or a group of related authors. The particular author to be taught in a given semester will be announced in the class schedule bulletin. *This course is typically offered fall and winter semesters.*

Prereq: ENGL300 and one 300-level LITR course

LITR453 Children's Literature: Picture Books 3 hrs

Intensive study of the picture book, emphasizing its development, major illustrators and their works, interaction of text and illustration to create meaning, its reflection of cultural values and critical apparatus for interpretation and evaluation.

LITR454 Children's Literature: Fiction 3 hrs

An intensive study of major works of fiction for children with emphasis placed upon literary criticism, textual analysis and wide reading. Students will write papers, present oral reports and be tested regularly.

LITR470 Studies in Poetry 3 hrs

A study of different poetic genres in English literature as they develop over time and are shaped by changing aesthetic conventions and social practices. *This course is typically offered fall and winter semesters.*

Prereq: ENGL300 and one 300-level LITR course

LITR477/478/479 Special Topics 1/2/3 hrs

An examination of topics in literature not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.

Prereq: ENGL300 and one 300-level LITR course

LITR480 Studies in Literature and Culture 3 hrs

A seminar course devoted to theorizing and articulating the relationships between literature and culture. *This course is typically offered fall and winter semesters.*

Prereq: ENGL300 and one 300-level LITR course

LITR490 Senior Seminar 3 hrs

This seminar requires students to understand and analyze literature in English from different historical and cultural perspectives, with an emphasis on current trends in literary theory. *This course is typically offered fall and winter semesters.*

Prereq: senior majors in literature or language, literature and writing

LITR497/498/499 Independent Study 1/2/3 hrs

Study of topics not offered in the regular curriculum, the particular topic to be defined (and credit hours set) by the teacher and student, subject to approval by the curriculum committee. Restricted to students taking majors or minors in the English Language and Literature Department.

Prereq: nine hours in the appropriate major or minor

Language Courses (LNGE)

LNGE134 Etymology 3 hrs

Greek and Latin words and roots that are current in English forms are studied in order to enlarge the vocabulary and to produce a more discriminating use of words.

LNGE177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

LNGE202 Grammar for ESL Teachers 3 hrs

The main purpose of this course is to help students to develop: (a) an explicit understanding of the most frequently occurring English structures, (b) a working knowledge of prescriptive and descriptive rules, (c) sensitivity to learners' developmental errors and (d) the analytical skills needed to teach grammar to English language learners.

LNGE223 Introduction to Language 3 hrs

The basic principles of linguistic structure as they apply to the western European languages taught in the department.

LNGE240 Linguistic and Cultural Diversity in the U.S. 3 hrs

Students will explore the nature of language and its relationship to culture as it impacts the classroom. Emphasis will be on the dissemination of English around the world through TESOL, the role of geography, ethnicity and social status in language diversity, and the impact of language choice within educational settings.

LNGE242 Linguistic and Cultural Diversity: Global Englishes 3 hrs

Students will explore the nature of language and its relationship to culture as it impacts the classroom. Special emphasis will be placed on the dissemination and use of English around the world,

the role of geography, ethnicity and social status in language diversity, and the nature of language choice as they impact TESOL.

LNGE277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LNGE325 Second Language Acquisition 3 hrs
Students examine the nature of learning a second language simultaneously with, or subsequent to, one's first language. Linguistic, cognitive, affective, cultural and social factors influencing the acquisition of another language are explored. Focus includes various age and English ability levels.
Prereq: LNGE223 and LNGE202

LNGE377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LNGE477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

LNGE497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Mathematics Courses (MATH)

MATH097 Pre-College Mathematical Concepts — Part I 5 hrs
A mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: program placement

MATH097A Pre-College Mathematical Concepts — Part I 3 hrs
The first part of a mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: program placement

MATH097B Pre-College Mathematical Concepts — Part II 3 hrs
The second part of a mastery-based developmental mathematics course designed to prepare students for a developmental algebra course; covers beginning mathematical concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: MATH097A or program placement

MATH098 Pre-College Introductory Algebra Concepts 5 hrs
A mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: at least C in MATH097 or MATH097B or placement

MATH098A Pre-College Introductory Algebra Concepts — Part I 3 hrs
The first part of a mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: At least C in MATH097 or MATH097B or placement.

MATH098B Pre-College Introductory Algebra Concepts — Part II 3 hrs
The second part of a mastery-based developmental mathematics course designed to prepare students to succeed in a college-level mathematics course; covers beginning algebra concepts and skill development in a supportive but structured setting; includes help with math study skills and reducing math anxiety. *Credit for this course will not count toward graduation.*
Prereq: at least C in MATH098A or placement

MATH104 Intermediate Algebra 3 hrs
A review of elementary algebra and a continuation into the study of functions, graphs and quadratic equations.
Prereq: placement or at least C in MATH098 or MATH098B

MATH105 College Algebra 3 hrs
Properties of the real numbers; equations and inequalities; functions; sequences; mathematical induction; polynomial, rational, exponential and logarithmic functions; introduction to probability.
Prereq: placement or at least a C in MATH104

MATH107 Plane Trigonometry 2 hrs
An elementary course in plane trigonometry. Students who have good records in high school courses including trigonometric identities, trigonometric equations, and oblique triangles should not take the course.
Prereq: placement or at least a C in MATH104 (B or better strongly recommended), or MATH105, MATH119 or MATH210

MATH108 Mathematics for Elementary Teachers I 3 hrs
The first of a two-course sequence that examines topics in the elementary school mathematics curriculum from an advanced standpoint, with an emphasis on concepts and problem solving. Topics include number theory, real number systems and their properties, algebra concepts and functions. Required of all students in elementary and later elementary curricula. Open only to prospective elementary teachers.
Prereq: placement or at least C in either MATH098 or MATH098B, or MATH105, MATH112 or MATH120

MATH110 Mathematical Reasoning 3 hrs
An introduction to quantitative reasoning, with the aim of developing the capacity to comprehend and analyze the quantitative information that is prevalent in modern society. Topics include mathematical modeling, basic probability and statistics and practical applications. *Restricted to students who have not declared Elementary Education intent, who are not in any Elementary Education program and who are not in the Special Education Elementary program.*
Prereq: placement or at least C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH112

MATH110E Mathematical Reasoning: Applications for Elementary School Teachers 3 hrs
An introduction to quantitative reasoning, with the aim of developing the capacity to comprehend and analyze the quantitative information that is prevalent in modern society. Topics include mathematical modeling, basic probability and statistics, geometry and practical applications for elementary education majors.
Prereq: Placement or at least a C in MATH098 or MATH098B, or MATH104, MATH105, MATH107, MATH108, or MATH118 and enrollment in Elementary Education Intent or Elementary Education or Special Education for Elementary

MATH112 Topics in Precalculus Mathematics 4 hrs
Provides a thorough preparation for calculus for students who are insufficiently prepared in college algebra and trigonometry or who need to review these subjects. Emphasis will be on topics from college algebra and trigonometry that are used in calculus. *Some knowledge of trigonometry is assumed.*
Prereq: placement or MATH105

MATH118 Linear Models and Probability 3 hrs
Linear models, systems of linear equations, linear regression, probability theory, probabilistic simulations, decision theory, descriptive statistics; combinatorics and/or financial models as time permits.
Prereq: placement or at least C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH120

MATH119 Applied Calculus 3 hrs
Introduction to the concepts and applications of differential and integral calculus: behavior and

properties of algebraic, logarithmic and exponential functions, derivatives and rates of change, optimization and definite integral as accumulation. Emphasis on problem setup, interpretation and applications.

Prereq: placement or at least a C in MATH104 (B or better strongly recommended) or MATH105 or MATH210

MATH120 Calculus I 4 hrs
Calculus of functions of a single variable; differential calculus, including limits, derivatives, techniques of differentiation, the mean value theorem and applications of differentiation to graphing, optimization and rates. Integral calculus, including indefinite integrals, the definite integral, the fundamental theorem of integral calculus, and applications of integration to area and volume.

Prereq: placement or at least a C in MATH105 and MATH107, or in MATH112, or in MATH210 and MATH107

MATH121 Calculus II 4 hrs
Calculus of functions of a single variable continued; additional applications of definite integration to moments, centroids, arc length, surface area and work. Transcendental functions, infinite series, methods of integration, review of conic sections.

Prereq: at least a C in MATH120

MATH122 Elementary Linear Algebra 3 hrs
Vectors and matrices, operations on matrices, determinants, systems of linear equations, linear independence, linear transformations, applications.

Prereq: MATH105 with a minimum grade of C or MATH120 with a minimum grade of D- or MATH112 or placement

MATH130 Calculus Laboratory I 1 hr
Computer laboratory class designed to reinforce the major concepts of first-semester calculus.

Prereq: concurrent registration in MATH120

MATH131 Calculus Laboratory II 1 hr
Computer laboratory class designed to reinforce the major concepts of second-semester calculus.

Prereq: concurrent registration in MATH121

MATH170 Elementary Statistics 3 hrs
An introduction to standard methods in statistics, emphasizing the rationale behind them and their application to problems in a variety of fields. Data summary and representation, measures of center and dispersion, correlation and regression, basic probability, point and interval estimation, and hypothesis testing.

Prereq: placement or at least a C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH120

MATH177/178/179 Special Topics 1/2/3 hrs
These special topics courses will be used to teach some aspects of mathematics at an elementary level that would not be regularly offered. This course does not count on a regular major or minor in mathematics.

Prereq: department permission

MATH205 Mathematical Structures for Computer Science 4 hrs

Propositional and predicate logic, sets and operations, discrete functions, sequences, finite summations, function growth, elementary number theory, matrices and applications, proof techniques, elementary combinatorics, discrete probability, relations.

Prereq: MATH120

MATH210 Algebra for Elementary Teachers 3 hrs

Field properties, complex numbers, number sentences, introduction to coordinate geometry, nature of proof and concept of limit. Open only to prospective elementary teachers.

Prereq: MATH109

MATH211 Introduction to Mathematical Proof 3 hrs

A transition to upper-level mathematics courses. This course highlights various types of mathematical thinking including direct, indirect and inductive proofs with careful treatment of quantified statements. Topics include sets, number theory and relations. Development of ability to write a precise mathematical proof is the primary goal.

Prereq: MATH121 and MATH122

MATH223 Multivariable Calculus 4 hrs

Vector products, lines and planes in three-dimensional space, quadric surfaces, cylindrical and spherical coordinates. Differential calculus of vector functions of a single variable: velocity and acceleration vectors, curvature. Partial differentiation, gradient, chain rule, directional derivatives, tangent planes, application to optimization. Multiple integration, change of coordinates, applications. Taylor's Theorem for Functions of Several Variables, line and surface integrals, Stokes' Theorem, Gauss' Theorem.

Prereq: at least a C in MATH121 and MATH122

MATH223 Calculus Laboratory III 1 hr

Computer laboratory class designed to reinforce the major concepts of third-semester calculus.

Prereq: concurrent registration in MATH223

MATH240 Geometry for Elementary Teachers 3 hrs

Informal geometry of the plane and space, congruence and measurement, elementary theorems and proof, and plane coordinate geometry. *Open only to prospective elementary teachers.*

Prereq: MATH109

MATH277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

MATH301 Advanced Topics in Elementary Mathematics 3 hrs

Acquaints prospective elementary teachers with new topics in the elementary mathematics curriculum such as algebraic systems, conic sections, trigonometry, statistical procedures and topics in number theory.

Prereq: MATH109 or MATH210 or MATH240

MATH304 Middle School Mathematics Methods and Content 3 hrs

Consideration of the mathematics program in middle school and junior high school, its organization and content, methods of teaching and learning. *Not open to freshmen, sophomores or students on academic probation.*

Prereq: MATH240 or MATH120

MATH306 Teaching of High School Mathematics 3 hrs

Consideration of the mathematics program in the high school, its organization and content, methods of teaching and learning. *Does not count on the major or minor. Not open to freshmen, sophomores or students on academic probation.*

Prereq: MATH120 and CURR305; admission to the teacher education program

MATH319 Mathematical Modeling 3 hrs

The modeling process; model building and evaluation, techniques of modeling; model fitting and models requiring optimization; empirical model construction — experimental models, dimensional analysis, simulation models, dynamic models; use of derivatives in the modeling process, single and multivariable dynamic models.

Prereq: MATH120 and MATH122

MATH325 Differential Equations 3 hrs

First and second order differential equations with applications, linear differential equations, power series solutions, Laplace transforms.

Prereq: MATH121 and MATH122

MATH341 College Geometry 3 hrs

An introduction to several geometries such as affine, projective, space-time and non-Euclidean.

Prereq: MATH211

MATH360 Statistical Methods 3 hrs

A comprehensive overview of statistical methods and analysis with applications. Topics include descriptive statistics, probability theory, random variables and probability distributions, sampling distributions, estimation and testing hypotheses, correlation and regression, introduction to computer-assisted statistical analysis.

Prereq: MATH120

MATH370 Probability and Statistics I 4 hrs

Basic concepts of probability; expectation, variance, covariance distribution functions and their application to statistical tests of hypothesis; bivariate, marginal and conditional distributions; treatment of experimental data. Applications to problems in science and/or social science are emphasized.

Prereq: MATH223

MATH372 Problems in Actuarial Studies I 2 hrs

Applications of mathematics to actuarial science. Particular attention paid to subject matter not covered in the regular mathematics curriculum and to special techniques of problem solving appropriate to actuarial science. (This course can be useful in preparing for the Actuarial Examination, Part I-General Mathematics.)

Prereq: MATH223; a minimum GPA in mathematics of 3.4 is strongly recommended

MATH377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

MATH381 The Teaching of Mathematics, K-6 3 hrs

Learning to teach children in the elementary grades (K-6) the understanding processes of mathematics. Attention is focused on learning-teaching situations and effective use of learning aids. Required of all students on early elementary and later elementary curricula. *Not open to students on academic probation.*

Prereq: MATH109 and CURR304; admission to the teacher education program

MATH382 Technology in the Mathematics Classroom 3 hrs

An introduction to way in which calculators and computers can be used effectively to enhance instruction in the elementary and middle school mathematics classroom.

Prereq: MATH210

MATH387 Cooperative Education in Mathematics 3 hrs

Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in mathematics. The program consists of two work experiences (MATH387/487) alternating with full-time attendance at the University. *Use on mathematics major subject to department permission. Graded on a credit/no-credit basis.*

Prereq: junior or senior majoring in mathematics, MATH223, admittance to program by application only, department permission

MATH400 History and Development of Mathematics 3 hrs

The course presents topics in the evolution of mathematics — the historical development of algebra, geometry and calculus provides the major focus. Problems will be assigned that reflect the content and methods of this development.

Prereq: MATH121/122

MATH401 Mathematics and Its History for Elementary Teachers 3 hrs

Topics in the evolution of mathematics from ancient times through the present, with an emphasis on connections with the elementary school curriculum. Development of numeration systems, algebra, different geometries, calculus; including the contributions of different cultures in the development of mathematics.

Prereq: MATH240/301

MATH403 Current Research in Elementary School Mathematics 3 hrs

A brief history of mathematics education, 1890 to present. Special emphasis on important recent research studies. Consideration of various textbook series, use and evaluation of supplementary materials, the place and value of teaching aids. Professional journals will be utilized throughout the course.

Prereq: MATH301/381

MATH407 Elementary Number Theory 3 hrs

Primes, Euclidean algorithm and prime factorization, congruences, multiplicative functions, quadratic residues and reciprocity, continued fractions, Diophantine equations, possible applications to cryptology and/or primality testing.

Prereq: MATH211

MATH409 Cryptology 3 hrs

An introduction to cryptology, the science of making and breaking codes and ciphers. Primes, modular arithmetic, probability, Euler's phi-function, factoring algorithms, cryptographic and cryptanalytic techniques for classical and modern cryptographical systems including public key cryptography.

Prereq: MATH205 or MATH211

MATH411 Abstract Algebra 3 hrs

An introduction to the theory and concepts of abstract algebra. Topics from group theory: subgroups, cosets, Lagrange's Theorem, homomorphisms. Also selected topics from ring theory and field theory.

Prereq: MATH211

MATH416 Linear Algebra 3 hrs

Theoretical aspects of linear algebra: vector spaces, linear transformations and matrices, systems of linear equations, diagonalization, inner product spaces.

Prereq: MATH122/211

MATH418 Modeling with Linear Algebra 3 hrs

Topics in linear algebra such as linear transformations, eigenvalues, eigenvectors and inner products. Applications may include rotations in space and 3-D graphics, stochastic processes, systems of linear ODEs, Fourier series, orthogonal polynomials and projection methods for solving overdetermined systems.

Prereq: MATH121/122

MATH419 Advanced Mathematical Modeling 3 hrs

A course involving an in-depth study of mathematical models of greater complexity than is possible in MATH319, including both deterministic and probabilistic models. An important part of the course should include an opportunity for a student to become involved in an actual modeling program.

Prereq: MATH319

MATH420 Introduction to Real Analysis 3 hrs

A rigorous introduction to the foundations of calculus: real numbers, elementary topology of the real line, sequences and series, limits, continuity, uniform continuity, introduction to differentiation.

Prereq: MATH211

MATH424 Introduction to Complex Variables 3 hrs

Complex numbers, analytic functions, elementary functions and their mapping properties, conformal mapping and applications; contour integrals, Cauchy-Goursat Theorem and its consequences, Taylor and Laurent series, calculus of residues.

Prereq: MATH223

MATH425 Mathematics for Scientists 3 hrs

The scientific applications of mathematics. Topics chosen will reflect the interests of the class. Possible areas of study include Fourier series and transforms, complex variables, generalized functions, Laplace transform, Bessel functions, curve fitting, partial differential equations and the calculus of variations. A record of topics studied each semester will be kept in the mathematics files.

Prereq: MATH223

MATH436 Introduction to Numerical Analysis 3 hrs

Introduces the theory and application of numeric methods and error analysis; solution of nonlinear equations, interpolation and approximation, numerical integration, numerical solution of differential equations, numerical methods for solving large linear systems.

Prereq: MATH121/122; and one of: COSC145, COSC111 or COSC245

MATH448 Differential Geometry with an Introduction to General Relativity 3 hrs

Curve and surface theory in three-dimensional space: introduction to special and general relativity. Not open to students with credit in MATH548 Introduction to Differential Geometry.

Prereq: MATH223 and MATH325

MATH460 Applied Survey Sampling 3 hrs

A course in principles of sampling for assessment of data in business, social sciences or natural resource management. Sampling problem, selection of samples, designing questionnaires, estimation of means and variances, ratio, regression and difference methods, simple and stratified random sampling, systematic sampling, cluster sampling, probability proportional to size sampling. A special survey software package is used.

Prereq: MATH360 or MATH370

MATH461 Linear Regression Analysis 3 hrs

Topics include modeling a response as a simple or multiple regression model, validity of assumptions, using models for estimation and prediction, multicollinearity, auto-correlation of error terms, residual analysis and stepwise regression. A statistical software package (SAS) is used extensively.

Prereq: MATH122/360 or MATH370

MATH462 Design and Analysis of Experiments 3 hrs

A basic course in principles of experimental designs and analysis: randomized blocks and Latin squares, nested experiments, experimental and sampling errors, fixed and random effects models, factorial and fractional designs. A statistical software package (SAS) is used extensively.

Prereq: MATH360 or MATH370 or equivalent

MATH471 Probability and Statistics II 3 hrs

Nature of statistics; distributions, measure of central value and dispersion; sampling; statistical inference, estimation and tests of hypothesis. Methods of computation, applications and data analysis will be stressed. Nonparametric statistics: sequential tests, analysis of variance.

Prereq: MATH370

MATH472 Problems in Actuarial Studies II 2 hrs
Applications of probability and statistics to actuarial science. Particular attention paid to subject matter not covered in the regular mathematics curriculum and to special techniques of problem solving appropriate to actuarial science. (This course can be useful in preparing for the Actuarial Examination, Part II-Probability and Statistics.)
Prereq/Coreq: MATH471; a minimum GPA in mathematics of 3.4 is strongly recommended

MATH474 Applied Statistics 3 hrs
This course stresses the empirical approach to statistics: Monte Carlo methods to generate samples and to model distributions; tests of fit to assumed distributions; medians vs. means and range vs. standard deviations; demonstrations of basic theorems; randomness and independence.
Prereq: MATH360 or MATH370

MATH477/478/479 Special Topics 1/2/3 hrs
A senior-level course in a specific area of mathematics. The area to be studied will be determined by the field of specialization of the staff member teaching the course and the interest of the students enrolled.
Prereq: undergraduate grade point average in mathematics 3.0 or above and department permission

MATH487 Cooperative Education in Mathematics 3 hrs
Four to six months of full-time employment at an industrial firm specially chosen to provide practical experience in mathematics. The program consists of two work experiences (MATH387/487) alternating with full-time attendance at the University. *Use on mathematics major subject to department permission. Graded on a credit/no-credit basis.*
Prereq: junior or senior majoring in mathematics, admittance to program by application only, MATH387, department permission

MATH497/498/499 Independent Study 1/2/3 hrs
A report on an approved subject in the field of mathematics under the guidance of the Mathematics Department staff.
Prereq: undergraduate grade point average in mathematics 3.0 or above and department permission

Mechanical Engineering Technology Courses (MET)

MET211 Statics 3 hrs
This course is an applied and analytical study of structural components in static equilibrium with emphasis on engineering applications. Topics include force resultants, moments, trusses, frames, centroids and moments of inertia.
Prereq: PHY223

MET312 Applied Dynamics Principles 3 hrs
Fundamentals of the kinematics and kinetics of motion with emphasis on practical applications of engineering systems. Theory and application of Newton's Laws of Motion, displacement, velocity, acceleration, rectilinear and curvilinear motion, power, impulse and momentum. Lecture and laboratory course.
Prereq: MATH120, PHY223 and MET211

MET313 Applied Mechanics of Materials 3 hrs
Analysis and design of structural members subjected to external forces, considering stress, strain and deformation of elastic solids. Study of tension, compression, shear, torsion and combined stress. Emphasis on the practical application of these concepts to the analysis of beams, columns, pressure vessels and machine members. Lecture and laboratory course.
Prereq: MATH120, PHY223 and MET211

MET314 Applied Thermodynamics and Heat Transfer 3 hrs
Applications of the first and second laws of thermodynamics. Study of thermodynamics steam and refrigeration cycles. Availability and conservation of energy. Power and efficiency. Introduction heat transfer by conduction, convection and radiation. Fundamental laws governing the transformation of heat into mechanical energy with emphasis on practical applications of engineering systems. Lecture and laboratory course.
Prereq: MATH120, PHY223 and PHY224

MET319 Fluid Mechanics 3 hrs
An analytical and mathematical study of fluids under all conditions of rest and motion. The emphasis is on physical concepts rather than mathematical manipulation. Topics include fluid statics, kinematics of fluid motion, incompressible and compressible flow, impulse-momentum principle, fluid flow in pipes and open channels, and fluid measurement.
Prereq: MET211

MET411 Mechanical/Machine Design 3 hrs
A study of the decision-making processes which mechanical engineers use in the formulation of plans for the physical realization of machines, devices, and systems. Topics include the phases of design, codes and standards, stress analysis, failure criteria, design for fatigue strength and the design of mechanical elements.
Prereq: MFG124, COSC111, MET313 and MET312

MET434 Finite Element Analysis for Engineering Applications 3 hrs
Finite Element Analysis (FEA) is an engineering tool used by industries to analyze many practical problems during the design phase. Basic concepts of this technique will be introduced and the students will have hands-on experiences to analyze truss, beam, stress and strain problems using commercial software packages.
Prereq: CADM223 and MET313

MET437 Kinematics of Machines 3 hrs
Static, kinematic and dynamic analysis of plane motion. A study of instantaneous centers, velocities, accelerations and forces in mechanisms and machine elements. Development and analysis by analytical and graphical methods.
Prereq: MET313 and MET312

MET470 Mechanical Vibrations 3 hrs
Time and frequency domain mathematical techniques for linear system vibrations. Equations of motion of discrete systems. Vibration of two-degree-of-freedom systems. Oscillation Theory. Undamped system response. Viscously damped systems.
Prereq: MET312

MET492 Senior Design Projects I 3 hrs
The first term of a two-term, comprehensive, capstone, open-ended design project. Establishment and development of the design process with special emphasis placed on teamwork towards the initial design proposal — written and oral.
Prereq: ENGL324, MET411, MET434, MET437 and MET476

MET493 Senior Design Projects II 3 hrs
The concluding term of a two-term, comprehensive, capstone, open-ended design project. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.
Prereq: MET492

Manufacturing Courses (MFG)

MFG103 Introduction to Automation 3 hrs
An introduction to the technology of discrete parts manufacturing. Topics include the contemporary manufacturing environment, new and emerging technologies, human-machine interfaces and human resource issues. Course includes field trips.

MFG111 Materials 3 hrs
This course introduces students to the major categories of engineering materials. It focuses on selection, failure and degradation of metals, polymers, ceramics and composites.

MFG112 Plastics 3 hrs
A study of the plastics industry: material properties and identification, processing techniques, and application of design to product manufacture. Lecture and laboratory course.

MFG123 Manufacturing Processes and Methods I 3 hrs
An introduction and survey of manufacturing processes and materials. Lectures, laboratory, and outside study assignments are an essential part of this course and are related to heat treating, properties of materials, casting, forming and joining. Lecture and laboratory course.

MFG124 Manufacturing Processes and Methods II 3 hrs
An introduction and survey of machines, tools, processes and materials of industry. Includes conventional and nonconventional machining, theory of metal removal, cutting tool geometry and materials, fixturing and measuring devices. Lecture and laboratory course.
Prereq: MATH107 or Level 4 math placement

MFG140 Science, Technology and People 3 hrs
This course will help people better understand the complementary relationship between science and technology in (a) creating technical devices, services and systems; and (b) solving problems.

MFG177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

MFG203 Industrial Operation 3 hrs
A survey course in the practices of manufacturing organizations. Units include careers, regulatory agencies, facilities management, group technology, problem solving and quality decision-making.

MFG215 Machine Tool Metalworking 3 hrs
Machine tools and metalworking processes including turning, drilling, shaping, milling and grinding. Principles of tooling, precision measurement and identification of metals. Lecture and laboratory course.

MFG251 Material Analysis and Testing 3 hrs
Study of the structure, characteristics, and working qualities of common industrial materials. Lecture and laboratory course.

MFG277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

MFG290 Geometric Dimensioning and Tolerancing and Metrology 3 hrs
Introduction to metrology and geometric dimensioning and tolerancing concepts. Practical applications of metrology including geometric dimensioning and tolerancing will be focused on through lecture and laboratory experiences.
Prereq: CADM122 and MFG124

MFG306 Plastic Processing 3 hrs
A study of high polymers, basic resin types, and their application to molding and fabrication process. Analysis of chemical and physical properties, mold design, and problems of production. Experimentation and testing required. Lecture and laboratory course.
Prereq: MFG111

MFG311 Engineering Intellectual Property 3 hrs
Introduction to intellectual property as related to the field of engineering. Topics include patents, copyrights, trademarks, trade secrets and intellectual property licensing.
Prereq: MFG203, sophomore standing

MFG316 Design for Manufacturing and Tooling 3 hrs
A study of manufacturing tooling systems integrated with product and process design principles, utilizing concurrent engineering methods. Students from various programs will work together in integrated teams and utilize complementary tools and skills to solve design problems. Lecture and laboratory course.
Prereq: MFG124/203

MFG318 Fluid Power 3 hrs
Industrial hydraulic and pneumatic power transmission. Emphasis is on components, system control techniques, logic, system analysis and design. Lecture and laboratory course.
Prereq: PHY221

MFG327 Engineering Project Management 3 hrs
A study of project management activities associated with design and manufacturing engineering. Topics include project management concepts, methodologies, planning, budgeting, scheduling, evaluation, communication and implementation.
Prereq: MFG203 and sophomore standing

MFG361 Computer Numerical Control 3 hrs
NC programming for both CNC mill and lathe. The transfer of part descriptions into a detailed process plan, tool selection, and finally into NC machine codes. Computer-assisted programming, APT, and CAD/CAM for 2-D machining is emphasized. Verification is accomplished by laboratory work.
Prereq: MATH107 or Level 6 math placement, MFG124 and CADM223

MFG377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

MFG380 Engineering Cost Estimating 3 hrs
Analysis of product design and manufacturing costs. Methodology for product design and manufacturing based on economic factors. Development of cost estimates for product design, tooling, and manufacturing costs. Introduction to bidding and the preparation of part quotes.
Prereq: MFG203 and sophomore standing

MFG387 Cooperative Education in Manufacturing Technology 3 hrs
Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-*

credit basis. Credit applicable to the major in industrial technology or industrial teacher education only.
Prereq: department permission

MFG409 Plastics Mold Design and Construction 3 hrs
Principles of mold design for a variety of plastic-molding processes. Mold materials, machining, fabricating and testing in appropriate processing equipment are required. Lecture and laboratory course.
Prereq: MFG306

MFG410 Plastics Product Design 3 hrs
The development of products through plastic materials selection and design that includes the esthetics of design and the selection of engineering properties. Lecture and laboratory course.
Prereq: MFG306

MFG411 Plastics Fabricating and Decorating 3 hrs
Processes involved in forming and fastening of standard profile materials in plastics. Methods of joining, machining and decorating of plastics materials and products are required. Lecture and laboratory course.
Prereq: MFG306

MFG421 Manufacturing Engineering Analysis 3 hrs
An advanced course in the analysis of manufacturing operations, utilizing current and new concepts and methods of manufacturing engineering and quality. Students from various programs will work together in integrated teams and utilize complementary tools and skills to identify and solve problems. Lecture and laboratory course.
Prereq: MFG316

MFG425 Advanced Manufacturing Methods 3 hrs
The course emphasizes computerized methods of planning, material handling, machining cells and inspection. Lecture and laboratory course.
Prereq: MFG103, MFG123, MFG124, MFG203 and ELEC218.

MFG450 Lean Enterprise 3 hrs
Overview of lean philosophy and lean practices. Application of lean practices in manufacturing and service industries. Topics include but are not limited to standardized work, muda, kanban, 5S, jidoka, value stream mapping, JIT and Hoshin planning.
Prereq: MFG203 and sophomore standing

MFG470 Integrated Product and Process Design 3 hrs
This course investigates the integration of product and process design methodologies. It is intended for anyone involved in product design, manufacturing engineering, process engineering, or manufacturing management. The course investigates design for manufacture and assembly, quality function deployment, value analysis, failure mode and effects analysis, error/mistake proofing, team dynamics and design of experiments.
Prereq: MFG316 or MFG327

MFG477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

MFG487 Cooperative Education in Manufacturing Technology 3 hrs

The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study, for one semester. Regular employee benefits may be received. *Graded on a credit/no-credit basis.*

Prereq: MFG387 and department permission

MFG490 Manufacturing Enterprise Capstone 3 hrs

This capstone course will focus on the design and development of a product and the production system and enterprise for its manufacture. Students from various programs will work together in integrated teams and utilize complementary tools and skills to solve design, planning and production problems. Lecture and laboratory course.

Prereq: MFG421

MFG494/495/496 Industry-Based Special Topics 1/2/3 hrs

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

MFG497/498/499 Independent Study 1/2/3 hrs

Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.

Prereq: department permission

Management Courses (MGMT)

MGMT177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MGMT202 Business Communication 3 hrs
Study of principles, elements and practices underlying effective business communication. The course focuses on approaches for planning, creating and transmitting business information within a variety of business situations found in the global marketplace.

Prereq: ENGL121 and CTAS124

MGMT277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MGMT377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MGMT381/382 Cooperative Education in Management 1/2 hrs

Use on a management major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.

Prereq: MGMT202, department permission

MGMT384 Human Resource Management 3 hrs

Industrial relations functions in business organization. Recruitment, selection, placement, training, motivation and appraisal of personnel; the scientific approach to the solution of practical problems of industrial manpower utilization.

MGMT386 Organizational Behavior and Theory 3 hrs

A survey of the theory and practice of Organizational Behavior to better understand and manage people at work through an interdisciplinary examination of individual, group and organizational issues. Critical topics are ethics, groups and teams, motivation, leadership, feedback, culture, diversity, organizational design and change.

MGMT387 Cooperative Education in Management 3 hrs

Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management. *Use on a management major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.*

Prereq: MGMT202 and department permission

MGMT388 Introduction to Entrepreneurship 3 hrs

This course emphasizes the role of the entrepreneur in making integrated managerial and growth decisions for a start-up enterprise. The focus will be on developing a business plan for a new venture.

MGMT402 Business Report Writing 3 hrs

Study of principles and practices of business report writing in business, industry, education and government. Concepts, their illustrations, and applications. The creative and functional aspects in understanding the problem, gathering and organizing data, and presenting reports for management, employees and the public.

Prereq: MGMT202

MGMT403 Managerial Communication: Theory and Application 3 hrs

A theoretical framework of key managerial communication concepts; skills used to diagnose communication problems and to communicate corporate policies.

Prereq: MGMT202, MGMT386 or department permission

MGMT450 Leadership Theories and Practice 3 hrs

Leadership theories and practice will provide students with knowledge of the theories of leadership as well as practice in leadership and management. Several diagnostic techniques will be used to help students understand their own leadership strengths and areas to be developed.

MGMT457 The Merlanti Corporate Ethics Seminar 3 hrs

The Merlanti seminar seeks to provide future business leaders (in part through case studies and mentoring from practitioners) with the advanced knowledge and business skills needed to identify, analyze and resolve pressing contemporary issues in corporate social responsibility and ethics.

Prereq: department permission is required

MGMT460 Management Skills 3 hrs

This course will provide students with extensive practice in critical management skills such as group facilitation, project management, supervising employees and individual career management. Multiple participative techniques will be used such as case study, exercises, group projects and student presentations. *This course can be used as a substitute for MGMT480.*

Prereq: MGMT384 and MGMT386

MGMT477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MGMT480 Management Responsibility and Ethics 3 hrs

Social, legal and moral pressures of external and community groups on business operations; management's role of responsibility and leadership in interacting with these forces, and reducing and resolving conflicts with them. *MGMT457 can be used as a substitute for this course.*

Prereq: senior standing or department permission

MGMT481 Managing the Entrepreneurial Venture 3 hrs

This course focuses on managing an entrepreneurial venture in an increasingly professional manner. Topics include: management control systems, integrating short and long-range plans, financial planning, developing and implementing human resource systems, and developing a management team.

Prereq: MGMT388 or department permission

MGMT482 Compensation Administration 3 hrs

Basic concepts of design and methodology for wage and salary administration in an organization. Fundamental considerations in evaluating jobs and positions. Compensation methods and wage incentive systems.

Prereq: MGMT384

MGMT483 Staffing Organizations 3 hrs

The staffing of organizations; skills needed in human resource planning, recruitment, job analysis, selection techniques and evaluation.

Prereq: MGMT384

MGMT484 Management-Union Relations 3 hrs
Management strategy and techniques for conducting effective management-union relationships and negotiations; contract administration for both industrial and nonindustrial organizations.
Prereq: MGMT384

MGMT485 Human Resource Development 3 hrs
Determination of training needs; development of training objectives; selection and development of resources for appropriate training experiences; implementation of training program evaluation.
Prereq: MGMT384 or department permission

MGMT486 Organizational Change and Team Building 3 hrs
A practical approach to creating the organizational changes necessary for effective team-based, continual-improvement work systems. Students learn how to manage change effectively, providing a foundation for learning how to build teams and work effectively within teams. The course provides knowledge and critical skills needed for initiating and managing change and for building effective teams.
Prereq: MGMT386 or department permission

MGMT487 Cooperative Education in Management 3 hrs
Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management. *Use on a management major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.*
Prereq: MGMT387; department permission

MGMT488 Field Studies in Entrepreneurship 3 hrs
This course puts student teams into entrepreneurial firms to study and analyze the problems of an actual business. A comprehensive final report to the firm is required.
Prereq: MGMT388 or department permission

MGMT489 Management Internship 3 hrs
Approved on-the-job experience of students in the management internship program supplemented by seminars as appropriate. *Open only to students formally enrolled in the program and taken during their terms of supervised work experience. May be repeated for a maximum of six credit hours, but may be counted for free elective credits only. Offered on a credit/no-credit basis.*
Prereq: department permission

MGMT490 Business Policy 3 hrs
Integration and analytical application of fundamental areas of business-to-case problems. Policy issues in the identification and resolution of problem situations.
Prereq: senior standing in business administration or department permission (senior standing implies completion of the College of Business core: FIN350, MKTG360, MGMT386, Coreq: POM374)

MGMT492 Managing World Business Communication 3 hrs
This course focuses on such issues as global management in a cultural context, breaking down international business barriers, motivation in a global context, management of culture shock, international conflict management, management and cultural synergy, and business communication practice and traditions in specific national settings.
Prereq: MGMT202 or department permission

MGMT495 International Management 3 hrs
Comparisons of management concepts, processes, and practices in various countries with their differing educational, sociological, legal-political and cultural constraints. The evolution of management, and the transfer of managerial philosophy and practices to other countries.
Prereq: MGMT386 or department permission

MGMT496 Current Issues in Human Resource Management 3 hrs
A practical application of HR management techniques to current business issues; specially designed workshop-type sessions for prospective managers, supervisors and personnel specialists.
Prereq: MGMT384

MGMT497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem in management not otherwise treated in department courses.
Prereq: department permission

Microbiology Courses (MICR)

MICR177/178/179 Special Topics 1/2/3 hrs
An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

MICR277/278/279 Special Topics 1/2/3 hrs
An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

MICR328 Introductory Microbiology 3 hrs
Introduction to the biology of bacteria and other microbes; transmission of infectious diseases; and principles of, control of, and immunity to infectious diseases. A lecture/lab course. *Does not apply on the curriculum in clinical laboratory sciences, but will count as an elective towards the biology major or minor.*
Prereq: BIOL105 and CHEM120; or ZOOL201; or BIOL120

MICR329 General Microbiology 5 hrs
A lecture and laboratory course on the nature and biology of bacteria and other microbes, their physiological relationships in natural and controlled environments, and the interactions of pathogenic

microorganisms with their hosts. Laboratory includes an introduction to the techniques of isolating, cultivating, and identifying bacteria and other microbes, and their physiological, serological and pathological properties. *Not open to those who take MICR328. CHEM451 is highly recommended.*
Prereq: C- or better in BIOL301; and CHEM270 or CHEM372

MICR377/378/379 Special Topics 1/2/3 hrs
An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

MICR387 Cooperative Education in 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 two work experiences (MICR387/487) alternating with full-time attendance at the University. *Graded on a credit/no-credit basis.*
Prereq: MICR329 and junior standing; admittance to program by application only

MICR442 Microbial Ecology 3 hrs
Interactions among microbes (fungi, bacteria, some phages), other living organisms and the environment, with emphases on parasitism, mutualism, commensalism and biogeochemical recycling of matter. Includes both laboratory and field exercises.
Prereq: MICR329

MICR444 Microbial Physiology 3 hrs
A lecture and laboratory course of physiological studies on bacteria and fungi. Emphasis will be placed on nutrition, metabolism, fermentation, physiology of parasitism and biosynthesis of polymers by microbes. *CHEM451 and CHEM453 are highly recommended.*
Prereq: MICR329

MICR455 Bacterial Pathogenesis 3 hrs
A lecture course that examines the mechanisms of bacterial pathogenesis. Emphasis will be placed on host-bacterial interactions that lead toward bacterial infection.
Prereq: MICR329

MICR477/478/479 Special Topics 1/2/3 hrs
An examination of topics in microbiology not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

MICR487 Cooperative Education in 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 two work experiences (MICR387/487) alternating with full-time attendance at the University. *Graded on a credit/no-credit basis.*
Prereq: MICR387

MICR497/498/499
Special Problems 1/2/3 hrs
 Individual work in an area of microbiology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be elected more than once, after resubmission and approval.
Prereq: department permission

Marketing Courses (MKTG)

MKTG177/178/179
Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MKTG261 Contemporary Selling 3 hrs
 Introduction of the basic principles of personal selling, as used in profit and nonprofit organizations. Included are small case analyses, evaluation of sales presentations, and skill development using video recorded role-plays.

MKTG277/278/279
Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MKTG285/286/287
Cooperative Education 1/2/3 hrs
 Employment at a business or public organization in a marketing position. *General elective credit only. Offered on a credit/no-credit basis.*

MKTG360 Principles of Marketing 3 hrs
 Marketplace exchanges; the relationship between marketing activities of the organization and the consumer.

MKTG363 Retailing 3 hrs
 The practices of retail store management: store location, layout, organization, buying systems, sales promotion activities, customer services and store operating expenses.
Prereq: MKTG360

MKTG365 Consumer Behavior 3 hrs
 The study of the basic factors influencing consumer behavior, including the roles of affect, cognition, behavior and the environment. Models designed to explain consumer behavior will be explored, as well as implications for public policy and the development of marketing strategies.
Prereq: MKTG360 and PSY101

MKTG368 Marketing Strategy 3 hrs
 Advanced policies and practices in marketing. Case analysis of marketing problems pertinent to product, price, promotion and channels of distribution policies.
Prereq: MKTG360 and ACC240

MKTG369 Advertising 3 hrs
 Advertising as a communication tool in marketing management. The role of advertising in the marketing mix and in society. Emphasis on problem-based decision making including the appropriate use of research in establishing advertising objectives, allocating advertising budgets, determining target audiences, developing creative strategies, selecting media and determining advertising effectiveness.
Prereq: MKTG360

MKTG374 Business to Business Marketing 3 hrs
 Concepts, procedures, and problems encountered when one business or organization markets its products or services to another. Emphasizes the marketing practices employed by industrial organizations. Topics include: customer relationship management, market analysis, organizational buying behavior, purchasing procedures, pricing and negotiation, selling and marketing planning.
Prereq: MKTG360

MKTG375 International Business Transactions 3 hrs
 How goods and services are moved internationally. Transportation concepts and systems, the shipping scene, various documents needed to expedite the international movement of goods.
Prereq: MKTG360

MKTG377/378/379 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

MKTG385/386/387
Cooperative Education 1/2/3 hrs
 Employment at a business or public organization in a marketing position. *General elective credit only. Offered on a credit/no-credit basis.*
Prereq: department permission

MKTG425 Sports and Event Marketing 3 hrs
 This course includes topics germane to marketing activities associated with sports and a variety of events. It looks at the marketing of spectator and participation sports as well as events such as the arts, local festivals and charity events. The course also examines the use of such events as marketing tools. This component will look at issues such as endorsements, licensing, naming rights and sponsorship linkages.
Prereq: MKTG360

MKTG430 Marketing of Services 3 hrs
 Study of marketing practices as applied to the service industry. Special emphasis is placed on the marketing concept and customer satisfaction in the service industry.

MKTG460 International Marketing 3 hrs
 International marketing and its role in the multinational corporation. Appraising international opportunities; product, price, promotion and distribution policies; foreign marketing environments.
Prereq: MKTG360

MKTG461 Sales Management 3 hrs
 Planning, organizing, directing and controlling the sales force. Recruiting, selecting, training, evaluating, compensating and supervising.
Prereq: MKTG261 and MKTG360

MKTG470 Marketing Research 3 hrs
 Skills and attitudes required to specify and utilize market and buyer information in defining marketing problems and making marketing decisions. Applied marketing research problems.
Prereq: MKTG360 and DS265

MKTG473 Marketing and Product Innovation 3 hrs
 Marketing and product successes and failures, environmental influences, market/product plans, and the new product planning process. Development of a project, starting with product-idea and continuing through offering a new product/service.
Prereq: MKTG360

MKTG474 Promotional Strategy 3 hrs
 Problems of advertising and other promotional tools in the context of Integrated Marketing Communications theory. Topics include interactive promotions, direct marketing promotions, sales promotions and public relations. Emphasis on problem-based decision making and development of promotional campaigns.
Prereq: MKTG369

MKTG475 Marketing Planning and Management 3 hrs
 Integration of concepts from previous marketing courses and planning the marketing program.
Prereq: MKTG368 and marketing major with senior standing or department permission

MKTG477/478/479
Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: MKTG360

MKTG485/486/487 Cooperative Education in Marketing 1/2/3 hrs
 Employment at a business or public organization in a marketing position. *General elective credit only. Offered on a credit/no-credit basis.*
Prereq: MKTG387 and department permission

MKTG489 Internship Program 3 hrs
 Approved marketing projects with business or nonprofit organizations.
Prereq: marketing major and department permission

MKTG497/498/499
Independent Study 1/2/3 hrs
 Directed study of a problem or group of problems in production systems or management science.
Prereq: department permission

Military Science and Leadership Courses (MSL)

MSL101 Foundations of Officership 2 hrs
Introduces students to issues and competencies that are central to a commissioned officer's responsibilities. Established framework for understanding officership, leadership, and Army values. Includes "life skills" such as physical fitness training, time management, stress management, group dynamics and briefing skills.

MSL102 Basic Leadership 2 hrs
Establishes foundation of basic leadership fundamentals such as problem solving, communications, briefings, effective writing, goal-setting, techniques for improving listening and speaking skills, an introduction to counseling, additional physical fitness training and time management training.
Prereq: MSL101 or department permission

MSL201 Individual Leadership Studies 2 hrs
Students identify successful leadership characteristics through observation of others and self through experimental learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss observations in small group settings, additional physical fitness training and additional time management training.
Prereq: MSL101 and MSL102 or department permission

MSL202 Leadership and Teamwork 2 hrs
Students examine how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem-solving process and obtaining team buy-in through immediate feedback and additional physical fitness training.
Prereq: MSL101, MSL102, MSL201 or department permission

MSL301 Leadership and Problem Solving 3 hrs
Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem-solving techniques. Students receive direct feedback on leadership abilities.
Prereq: MSL101, MSL102, MSL201, MSL202 or department permission

MSL302 Leadership and Ethics 3 hrs
Examines the role communications, values and ethics play in effective leadership. Topics include ethical decision-making, consideration of others, spirituality in the military and survey Army leadership doctrine. Emphasis on improving oral and written communication abilities, as well as, additional physical fitness training.
Prereq: MSL101, MSL102, MSL201, MSL202, MSL301 or department permission

MSL401 Leadership and Management 3 hrs
Develops student proficiency in planning and executing complex operations, functioning as a member of a staff and mentoring subordinates. Students explore training management, methods of effective staff collaboration and developmental counseling techniques along with additional physical fitness training.
Prereq: MSL101, MSL102, MSL201, MSL202, MSL301, MSL302 or department permission

MSL402 Officership 3 hrs
Study includes case study analysis of military law and practical exercises on establishing an ethical command climate. Students must complete a semester-long Senior Leadership Project that requires them to plan, organize, collaborate, analyze, demonstrate their leadership skills and additional physical fitness training. This course is designed to transition the student/cadet to service as a second lieutenant in the Army or for government service, i.e. U.S. Army history.
Prereq: MSL101, MSL102, MSL201, MSL202, MSL301, MSL302, MSL401 or department permission

MSL497/498/499 Independent Study 1/2/3 hrs
Intensive study or project approved by the department head. Study or project is directly related to a military subject.
Prereq: department permission

Music Courses (MUSC)

MUSC100 Introduction to Music Theory 3 hrs
Designed for the non music major. A preparatory course for MUSC101 for the music major or minor deficient in music theory. The basic elements of music: notation of pitch and rhythm, scales, intervals, tonality, beginning sight-singing and dictation.

MUSC101 Music Theory I 3 hrs
Integrated theory course dealing with perception, writing, analysis and performance of basic musical materials; stylistic comprehension of music of all periods. For music majors and minors. Taken concurrently with MUSC118 and MUSC119.
Prereq: department permission

MUSC102 Music Theory II 3 hrs
Continuation of MUSC101. For music majors and minors. Taken concurrently with MUSC129.
Prereq: MUSC101 (with a grade of C or better) and MUSC119
Coreq: MUSC129

MUSC103 Introduction to Music Therapy 2 hrs
An orientation to music therapy. Introductory survey of the various impaired and disabled populations served, current career opportunities and exploration of interventions utilized by music therapists to achieve specific therapeutic goals. Observation of registered music therapists in hospital, clinical and school settings is required.

MUSC106 Introduction to the Performing Arts 3 hrs
A survey of the arts of dance, theatre and music, developing an understanding and appreciation of representative works in the three fields; the place of these arts in contemporary society and their contribution to a richer life. Attendance required at specified on-campus performances. Nonmusic majors only.

MUSC107 Music Appreciation 2 hrs
Guides the student in listening to and understanding various types, forms and styles of instrumental and vocal music of the world. Representative works of all periods and cultures, including contemporary developments, will be studied. Attendance at some concerts and recitals required. Non music majors only.

MUSC118 Music Literature I 1 hr
Stylistic analysis and aural presentation of select musical masterworks in the history of western music, from the medieval period through the classic period. Objectives of the course parallel and relate to those of MUSC101. Taken concurrently with MUSC101 and MUSC119.
Prereq: department permission

MUSC119 Aural Skills I 1 hr
Development of fundamental sight-singing techniques as well as skills in notating performed melodic and harmonic musical examples. Objectives of the course parallel those of MUSC101. Taken concurrently with MUSC101 and MUSC118.
Prereq: department permission

MUSC128 Music Literature II 1 hr
A continuation of MUSC118. Stylistic analysis and aural presentation of select musical masterworks in the history of Western music from the classic period through the 20th century. Objectives of the course parallel and relate to those of MUSC102. For music majors and minors. Taken concurrently with MUSC102 and MUSC129.
Prereq: MUSC101, MUSC118 and MUSC119

MUSC129 Aural Skills II 1 hr
A continuation of MUSC119. Development of intermediate sight-singing techniques as well as skills in notating performed melodic and harmonic musical examples. Objectives of the course parallel those of MUSC102. For music majors and minors. Taken concurrently with MUSC102.
Prereq: MUSC101 and MUSC119 (with a grade of C or better);
Coreq: MUSC102.

MUSC131 University Choir 1 hr
An ensemble of advanced singers. Open to all students in the University.
Prereq: department permission

MUSC134 University Women's Chorus 1 hr
Open to all women students.
Prereq: department permission

MUSC135 University Men's Chorus 1 hr
Open to all men students.
Prereq: department permission

MUSC136 Chamber Choir	1 hr	MUSC219 Aural Skills III	1 hr	MUSC235 Diction in Singing	2 hrs
Chamber music for mixed voices. Open to all students. <i>Prereq: department permission</i>		A continuation of MUSC129. Development of intermediate/advanced sight-singing techniques as well as skills in notating performed melodic and harmonic musical examples. Objectives of the course parallel those of MUSC201. For music majors and minors. Taken concurrently with MUSC201. <i>Prereq: MUSC102 and MUSC129 (with a grade of C or better);</i> <i>Coreq: MUSC201</i>		The physiological descriptions and laboratory practice of diction as used in singing English, French, German, Italian and Latin.	
MUSC149 Athletic Band	1 hr	MUSC221 Methods and Materials in Music Therapy	2 hrs	MUSC241 Percussion	1 hr
The Athletic Band rehearses music and performs for a schedule (determined by the instructor) of the University's men's and women's basketball and volleyball home games. The Athletic Band also may perform for postseason basketball competition. MUSC149 may not serve to fulfill Group V general education requirement. <i>Prereq: department permission</i>		Study of resources available in music therapy and their systematic application to meet the treatment needs of children and adults with various dysfunctions. Presentation of specifically designed music therapy experiences. <i>Prereq: MUSC222</i>		The teaching and playing of snare drum, tympani and keyboard percussion with an emphasis on group lesson techniques; survey of accessory instruments; introduction of methods, literature and use of the percussion ensemble. Majors and minors only.	
MUSC151 Class Piano	2 hrs	MUSC222 Preclinical Training Practicum in Music Therapy I	1 hr	MUSC243 Percussion Ensemble	1 hr
Group instruction in piano for students with no previous keyboard experience. Provides the necessary skills for carrying on a music program in the elementary classroom. Nonmusic majors only.		Introductory fieldwork experience in music therapy. Observation and documentation of music therapy sessions in clinical or educational settings. <i>Prereq: MUSC102, MUSC103</i>		Performance class designed to develop the percussionist's technical and musical skills in an ensemble setting. Devoted to the rehearsal and performance of the best in 20th-century percussion ensemble literature in a variety of styles. <i>Prereq: percussion major or minor or department permission</i>	
MUSC152 Class Piano	2 hrs	MUSC223 Preclinical Training Practicum in Music Therapy II	1 hr	MUSC244 Jazz Ensemble	1 hr
Continuation of MUSC151 with emphasis on the functional aspects of piano playing and elementary piano literature. For students not specializing in music and with no more than one year of previous keyboard experience. <i>Prereq: MUSC151; department permission</i>		Continuation of MUSC222. Leadership or co-leadership of music therapy sessions. <i>Prereq: MUSC222</i>		Performance class dealing with the elements of jazz arrangement, improvisation and ensemble techniques with special emphasis on the function of jazz in music education. <i>Prereq: department permission</i>	
MUSC177/178/179 Special Topics	1/2/3 hrs	MUSC224 Recreational Music	2 hrs	MUSC246 String Ensemble	1 hr
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. <i>Prereq: department permission</i>		For recreation majors. Specific activities, techniques and resources for directing recreational music programs.		Chamber music for strings. <i>Prereq: department permission</i>	
MUSC201 Music Theory III	3 hrs	MUSC228 Music Literature IV	1 hr	MUSC247 Woodwind Ensemble	1 hr
Continuation of MUSC102 with more emphasis on harmonic, melodic, compositional and structural techniques of 16th through 20th centuries. For music majors and minors. Taken concurrently with MUSC219. <i>Prereq: MUSC102 (with a grade of C or better) and MUSC129;</i> <i>Coreq: MUSC219</i>		A continuation of MUSC218. Stylistic analysis and aural presentation of select musical masterworks in the history of western music from the classic period through the 20th century. Objectives of the course parallel and relate to those of MUSC202. For music majors and minors. Taken concurrently with MUSC202 and MUSC229. <i>Prereq: MUSC201, MUSC218 and MUSC219</i>		Chamber music for woodwinds. <i>Prereq: department permission</i>	
MUSC202 Music Theory IV	3 hrs	MUSC229 Aural Skills IV	1 hr	MUSC248 Orchestra	1 hr
Continuation of MUSC201. For music majors and minors. Taken concurrently with MUSC229. <i>Prereq: MUSC201 (with a grade of C or better) and MUSC219;</i> <i>Coreq: MUSC229</i>		A continuation of MUSC219. Development of advanced sight-singing techniques as well as skills in notating performed melodic and harmonic musical examples. Objectives of the course parallel those of MUSC202. For music majors and minors. Taken concurrently with MUSC202. <i>Prereq: MUSC201 and MUSC219 (with a grade of C or better);</i> <i>Coreq: MUSC202</i>		Open to all students in the University.	
MUSC211 Basic Brass Class	1 hr	MUSC232 Voice Class	1 hr	MUSC249 Band	1 hr
The teaching and playing of trumpet and trombone. Majors and minors only.		Improving the singing and speaking voice through the study of breath control, tone production and diction. Not open to students with voice as a principal instrument. <i>Prereq: the ability to read music in the clef appropriate to student's voice classification</i>		MUSC249 includes Concert Winds, Symphonic Band and Marching Band. Open to all students of the University. Enrollment in MUSC249 requires attendance for the entire semester.	
MUSC212 Brass Class	1 hr			MUSC251 Functional Piano	1 hr
The teaching and playing of French horn, euphonium and tuba. <i>Majors and minors only.</i>				Required for all music majors and minors with no previous piano experience. Teaches keyboard skills necessary both for accompaniment of simple music and for developing musical understanding basic to all course work in music <i>Prereq: majors or minors only</i>	
MUSC218 Music Literature III	1 hr			MUSC252 Functional Piano	1 hr
Stylistic analysis and aural presentation of select musical masterworks in the history of western music from the medieval period through the classic period. Objectives of the course parallel and relate to those of MUSC201. For music majors and minors. Taken concurrently with MUSC201 and MUSC219. <i>Prereq: MUSC102/128/129</i>				Continuation of MUSC251. <i>Prereq: MUSC251 or equivalent; majors or minors only</i>	
				MUSC253 Functional Piano	1 hr
				Continuation of MUSC252. Stresses keyboard harmony, accompaniment, sight-reading, piano literature and technique. <i>Prereq: MUSC252; majors or minors only</i>	
				MUSC254 Functional Piano	1 hr
				Continuation of MUSC253. Additional accompaniment experience, keyboard harmony, improvisation, piano literature and techniques. Any break in the continuity of functional piano	

courses will require an audition before resumption of study.

Prereq: MUSC253 or equivalent; majors or minors only

MUSC261 Basic String Class: Violin 1 hr

The teaching and playing of the violin from a pedagogical approach. Designed primarily for music education and music therapy majors. Small and large group instruction and current methods including rote and Suzuki approaches. Majors and minors only.

MUSC262 String Class: Viola 1 hr

Continuation of MUSC261; teaching and playing of viola. Majors and minors only.

Prereq: MUSC261

MUSC263 String Class: Cello and Double Bass 1 hr

The teaching and playing of cello and double bass. Majors and minors only.

MUSC271 Beginning Classical Guitar 2 hrs

Group instruction in classical guitar through the study of standard beginning methods and repertoire.

Prereq: department permission

MUSC272 Intermediate Classical Guitar 2 hrs

Group instruction in classical guitar through the study of standard intermediate methods and repertoire.

Prereq: MUSC271

MUSC274 Functional Guitar 2 hrs

Functional skills for playing guitar. Students will learn guitar notation, chords, and various accompaniment styles. Intended primarily for music education majors, music education minors and music therapy majors.

Prereq: department permission

MUSC277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

MUSC281 Basic Woodwind Class 1 hr

The teaching and playing of clarinet; *Majors and minors only*

MUSC282 Woodwind Class 1 hr

The teaching and playing of flute and saxophone. *Majors and minors only.*

MUSC283 Woodwind Class 1 hr

The teaching and playing of oboe and bassoon. Majors and minors only.

MUSC301 History of Music 3 hrs

A chronological study of western music in its historical and cultural setting. Recognition of idioms, changing sounds, styles and forms of music in medieval, Renaissance and Baroque periods, approximately through 1750. Students survey the history of their instruments.

Prereq: MUSC202

MUSC302 History of Music 3 hrs

A continued chronological study of western music in its historical and cultural setting, beginning about 1750. Emphasis similar to MUSC301 but with a strong concentration in contemporary music. Covers classical, Romantic and present periods.

Prereq: MUSC301

MUSC303 Music Therapy Principles I 4 hrs

Examination of the research literature dealing specifically with the influence of music on behavior, including neurophysiological effects. In-depth study of diagnostic categories and systematic application of music therapy treatment to people within these categories. Laboratory experience is provided in which music therapy treatment is provided to individuals with various dysfunctions.

Prereq: admission to the music therapy program.

PSY101 or PSY102 and MUSC221

MUSC304 Music Therapy Principles II 4 hrs

Continuation of MUSC303. Exploration of professional skills needed by a music therapist in a variety of clinical settings. Includes in-depth examination of music therapy literature, various psychological theories and their relationships to music therapy. Laboratory experience is required.

Prereq: MUSC303

MUSC305 Keyboard Skills 2 hrs

Sight reading, harmonization, transposition, improvisation and score reading.

Prereq: MUSC102 and MUSC254 or department permission; majors or minors only

MUSC317 Music Composition 2 hrs

Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit.

Prereq: MUSC202 and department permission

MUSC320 Elementary Music Education 3 hrs

A study of materials and teaching techniques in relation to the interests, characteristics, and needs of children in elementary and special education classrooms. Nonmajors only.

Prereq: junior standing

MUSC326 Conducting 2 hrs

Fundamentals of baton technique, score reading, and interpretation of instrumental and vocal music.

Prereq: junior standing; majors or minors only

MUSC327 Instrumental Conducting 2 hrs

A practical course in instrumental conducting; score preparation, baton technique, study of technical and musical problems in conducting traditional and contemporary works.

Prereq: MUSC326

MUSC328 Choral Conducting 2 hrs

A practical course in choral conducting; baton technique, score analysis, study of technical and musical problems in conducting traditional and contemporary works.

Prereq: MUSC326

MUSC330 Music Education in the Elementary School 3 hrs

Organization, planning and teaching of elementary music. Examination, evaluation and preparation of materials. Music curriculum based on child growth and development principles. Concurrent placement in schools for observation and prestudent teaching experience. Open to music education majors and minors only.

Prereq: junior standing; completion of MUSC254 and Applied Music Course 114/115/116 or Applied Music Course 105/106 and Applied Music Course 134/135/136; MUSC202; admission to the College of Education;

Coreq: MUSC326

MUSC331 Music Education in the Secondary School 3 hrs

Care and treatment of adolescent voices; classification and training of voices; song interpretation; organization and administration of all types of choral ensembles; theory, history and literature of music classes; evaluation of numerous materials suitable for choral organizations and other classes in the secondary school; psychology and philosophy of music education. Open to music education majors only.

Prereq: junior standing; satisfactory completion of MUSC330; proficiency in piano and voice;

Coreq: MUSC328; admission to the teacher education program

MUSC332 Instrumental Music in the Public Schools 3 hrs

Designed to prepare students to teach instrumental music; covers organization of beginning classes, special problems of strings, selection of suitable materials, techniques of teaching, public relations and other areas of interest in the development of orchestras and bands. Special emphasis placed on music for grades four through nine. Open only to instrumental music education majors and minors. No students on academic probation.

Prereq: junior standing and admission to the College of Education

MUSC333 Orchestral Methods 3 hrs

Designed to assist students in their preparation as orchestra directors; special problems relevant to the string orchestra, string ensembles, and the string curriculum in the secondary schools. Open only to instrumental music majors. No students on academic probation.

Prereq: MUSC332; junior standing; admission to the teacher education program

MUSC334 Band Methods 3 hrs

Designed to assist students in their preparation as band directors in secondary schools; charting and drills for marching band; rehearsal procedures and selection of suitable materials for the concert band. Open only to instrumental music education majors. No students on academic probation.

Prereq: MUSC332; junior standing; admission to the teacher education program

MUSC341 Contrapuntal Techniques 2 hrs

Writing in polyphonic forms with concomitant analysis.

Prereq: MUSC202

MUSC351 Collegium Musicum 1 hr
Various ensembles of soloists — instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Open to all qualified students.

MUSC361 Music for Piano Instruction 2 hrs
Study of method books and materials suitable for use with beginning- and intermediate-level students.
Prereq: junior standing

MUSC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

MUSC387 Cooperative Education in Music 3 hrs
A cooperative work experience in the field of music.
Prereq: department permission

MUSC401 Music Theory-Literature V 2 hrs
Integration of previous studies in theory-literature and music history; continued study and analysis of music from all periods; original, creative composition with special emphasis on contemporary style.
Prereq: MUSC202

MUSC402 Music Theory-Literature VI 2 hrs
Continuation of MUSC401.
Prereq: MUSC401

MUSC404 Psychology of Music I 2 hrs
Study of the functional uses, psychological attributes, aesthetic effects and psycho-acoustical properties of music. Introduction to statistical analysis and evaluation of research in the field; examination of the continued need for investigation and documentation.
Prereq: MUSC304

MUSC405 Psychology of Music II 2 hrs
Continuation of MUSC404. In-depth exploration of empirical research in the field, with opportunities to conduct individual investigation of select topics.
Prereq: MUSC404

MUSC413 Orchestration 2 hrs
Practical work in setting compositions for full orchestra and various other instrumental ensembles.
Prereq: MUSC202

MUSC414 Band Arranging 2 hrs
Arranging for band; transcription from other media; original composition; analysis of representative work.
Prereq: MUSC413 and senior standing

MUSC424 Preclinical Training Practicum in Music Therapy III 1 hr
Fieldwork experience in clinical or educational setting under supervision of a registered music therapist. Taken concurrently with MUSC404.
Prereq: senior standing in music therapy program; MUSC304

MUSC425 Preclinical Training Practicum in Music Therapy IV 1 hr
Fieldwork experience continued. Taken concurrently with MUSC405.
Prereq: MUSC424

MUSC448/449 Opera Workshop 1/2 hrs
A laboratory-performance course that deals with performance of opera scenes and, when feasible, complete works. Musical, technical and dramatic aspects of production.
Prereq: department permission

MUSC475 Chamber Music Performance 2 hrs
Study and performance of literature for small chamber groups. May be repeated for credit.
Prereq: department permission

MUSC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

MUSC488 Clinical Training in Music Therapy 2 hrs
Six months of supervised training in a hospital, clinical or educational setting affiliated with the National Association for Music Therapy.
Prereq: MUSC425, senior standing, completion of all other music therapy curriculum requirements and successful completion of guitar, keyboard and voice competency examinations

MUSC490/492 Honors Course in Music 2/4 hrs
Provides superior students with the opportunity for an intensive program of independent study, original composition, performance or research.
Prereq: senior standing, cumulative average of 3.5 in music, 3.2 in general studies; regulations governing honors courses must be followed (see page 50)

MUSC497/498/499 Independent Study 1/2/3 hrs
Independent study, under the supervision of a department member, in areas in which the department does not offer a course.
Prereq: department permission

Applied Music Courses (Axxx)

Axxx101/102/103/104 Applied Music Course 1 hr
For elective study. May be repeated for credit.

Axxx105/106 Applied Music Course 2 hrs
Probationary applied music. For the student who requires additional preparation in his or her principal instrument before entering regular freshman level work. Cannot apply toward graduation requirements in any music major curriculum.

Axxx111/113/211/213/311/313/411/413 Applied Music Course 1 hr
For music minors. May be repeated for credit.

Axxx112/114/212/214 Applied Music Course 2 hrs
Lower-level work for music majors (BA, BS, BMEI, BMEV, BMT) only. May be repeated for credit.

Axxx140/144/240/244 Applied Music Course 4 hrs
Lower-level work for music majors (BM) only. May be repeated for credit.

Axxx312/314/412/414 Applied Music Course 2 hrs
Upper-level work for music majors (BA, BS, BMEI, BMEV, BMT) only. May be repeated for credit.

Axxx340/344/440/444 Applied Music Course 4 hrs
Upper-level work for music majors (BM) only. May be repeated for credit.

Note:
Students must take applied music courses for a principal instrument. For a list of principal instruments available (as well as their course prefixes), see page 130.

Network and Information Technology Administration Courses (NITA)

NITA177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

NITA210 Concepts of Network and Business Technology 3 hrs
The concepts and functions of networks and related business technology. The course emphasizes administration client/server and peer-to-peer networks. The course includes equipment, procedures and career opportunities.

NITA212 Open Systems Platform and Network Administration (3 hrs)
Introduction to open source client/server networking, careers and basic information security and assurance concepts. Focusing on Linux as a platform and server operating system, students learn through theory and applied work. Topics included are: file and hardware management, user account management, TCP/IP protocols and installation of the Linux client and server. Students build and administer a basic network.

NITA277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

NITA285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

NITA344 Administration of Computer Systems 3 hrs
Principles and practices of computer operating systems for networks in educational or small to mid-sized organizations. The course will emphasize the tasks the administrator must perform frequently.
Prereq: NITA210 and sophomore, junior or senior standing

NITA377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: NITA344

NITA387 Co-operative Education 3 hrs

NITA412 Linux Security Administration 3 hrs
Students in this course build complex Linux-based networks, implement selected special servers in the network and test various configurations for performance and security. Students identify the vulnerabilities of a complex network, apply security controls and troubleshoot problems in complex networks. Ethical, legal, professional conduct and security policy are discussed in this course.
Prereq: NITA212

NITA422 Networks: Planning and Design 3 hrs
The course focuses on planning and designing networks systems that deliver information services and resources. Emphasis is on end-user needs assessment, alternative system designs, security planning, support issues, and training and development. Students will develop a proposal for a new or revised end-user system that reflects the principles covered in the course.
Prereq: NITA344

NITA477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

NITA487 Co-operative Education 3 hrs

NITA495 Networks: Implementation and Evaluation 3 hrs
The course focuses on implementing and evaluating network systems that deliver information services and resources. Emphasis is on implementation based on current theories of innovation and change and on development of evaluation criteria. Testing information security and service delivery is included. Students will evaluate an actual or hypothetical end-user system.
Prereq: NITA344

NITA497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Nursing Courses (NURS)

NURS110 Introduction to Professional Nursing 2 hrs
This elective course explores professional nursing. Students examine independent and interdependent aspects; career options; selected skills essential to nursing practice; program options; and program application requirements and processes. Students will have opportunities to develop beginning level skills with communication, critical thinking and problem-solving processes.

NURS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

NURS208 The Art and Science of Nursing I 2 hrs
This introductory course uses Gordon's eleven health patterns and the nursing process to examine health, health promotion and illness prevention. Nursing is presented as a unique caring function that addresses important differences in health, health promotion and illness prevention based on age, gender, culture, ethnicity and socio-economic status.
Prereq: nursing major;
Coreq: NURS209

NURS209 The Art and Science of Nursing I Laboratory 3 hrs
This course provides the laboratory/clinical practice for the beginning nursing student. In the clinical experience the student, directly supervised by a nursing faculty, applies concepts learned in NURS208, NURS220 and NURS275 and learns and applies the psychomotor skills necessary to provide basic nursing care to adult patients with chronic illness.
Prereq: nursing major
Coreq: NURS208

NURS220 Health Assessment 2 hrs
This two-credit hour course with one hour of lecture and two hours of laboratory practice each week is designed to assist the student in developing the skills necessary to complete a basic health assessment of clients across the life span. The student will develop the skills necessary for interviewing, physical examination and documentation of the health history and physical examination. The course is composed of lectures, discussions, demonstration and laboratory based skills practice. This course prepares the student to complete a holistic basic health history and physical examination.
Prereq: nursing major
Coreq: NURS275

NURS250 The Art and Science of Nursing II 2 hrs
The course continues exploration and application of issues of professional nursing and the development of knowledge and skills foundational to nursing care of adults in health and illness. Emphasis will be placed on the effects of aging on health and illness and nursing care of adults in the context of family and culture.
Prereq: nursing major; NURS208, NURS209, NURS220 and NURS275;
Coreq: NURS251, NURS260, NURS270

NURS251 The Art and Science of Nursing II Laboratory 3 hrs
In this course students apply the concepts learned in theory and laboratory in providing nursing care to adults in various health and illness states with an emphasis on the ill yet stable individual in the acute care setting. The course continues exploration and application of cognitive, psychomotor and affective skill development in the care of these clients.
Prereq: nursing major; NURS208, NURS209, NURS220 and NURS275;
Coreq: NURS250, NURS260 and NURS270

NURS260 Pathophysiology 4 hrs
The course will concentrate on how physiologic functions are modified by disease processes and stress. All major physiologic functions will be presented. However, disease prototypes for a system will receive greater emphasis in the lecture. Knowledge gained from this course will provide the student with rationale for clinical decision making and action in related nursing courses. The teaching methodology for the class is the lecture.
Prereq: nursing major; NURS208, NURS209, NURS220 and NURS275
Coreq: NURS250, NURS251 and NURS270

NURS270 Pharmacology 3 hrs
This course is designed to provide the student with the basic concepts of pharmacology. The role and responsibility of the nurse for safe, legal, ethical and therapeutic drug therapy is developed. theories of drug actions and variables affecting drug actions are examined. Psychological and cultural aspects of drug therapy and self-medication are explored. The application of the nursing process relative to prescribed drug regimens is emphasized throughout this course.
Prereq: nursing major; NURS208, NURS209, NURS220 and NURS275;
Coreq: NURS250, NURS251 and NURS260

NURS275 Essentials of Professional Nursing Practice I 3 hrs
This course introduces the BSN student to the foundational elements of professional nursing as identified by the American Association of Colleges of Nursing. Active learning strategies are incorporated throughout the course to engage the student in exploration of professional values, core competencies, core knowledge and role development.
Prereq: nursing major
Coreq: NURS220

NURS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: nursing major

NURS304 Nursing Care of Childbearing Families 2 hrs

Nursing 304 focuses on maternal-newborn nursing within a family centered approach. The course encompasses the entire childbearing process, from pre-conception planning through pregnancy, birth and the postpartum period. Students use the nursing process with a focus on critical thinking, liberal arts and sciences in the care of childbearing families.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS305, NURS306 and NURS307

NURS305 Nursing Care of Childbearing Families Laboratory 3 hrs

This course focuses on the application of childbearing and family theory in the care of selected childbearing families. Clinical experiences will occur in prenatal clinics and intrapartum and postpartum settings of community hospitals.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS304, NURS306 and NURS307

NURS306 Child/Family Health Nursing 2 hrs

This course is designed to provide theoretical and practical knowledge in the nursing care of children and families in wellness and illness states. Health promotion, maintenance and restoration are stressed to promote physical, psychosocial, mental and spiritual wellness. Competent nursing care flows from this knowledge and is facilitated by an understanding of childhood development, family dynamics and communication skills.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS304, NURS305 and NURS307

NURS307 Child Family Health Nursing Laboratory 3 hrs

This course is designed to provide a variety of clinical experiences with healthy and ill children in acute care and community settings. Nursing skills based on safe nursing practice standards will be adapted to meet the child's health needs, developmental level and practice setting. These experiences are designed to facilitate sound clinical judgements and the development of leadership, collaboration, organization and management skills in clinical practice.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS304, NURS305 and NURS306

NURS330 Adult Health Nursing I 2 hrs

This course focuses on the nursing care of adult clients and families who have chronic illnesses. Content is presented in a nursing process format

via lecture, discussion and independent student studying. With a focus on student critical thinking, the course emphasizes the application, analysis and synthesis of nursing, liberal arts and science knowledge in the care of diverse adult populations with chronic illnesses. These professional role components are strongly emphasized: teaching/learning, interdisciplinary collaboration, client advocacy and coordination of care.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS331, NURS350 and NURS351

NURS331 Adult Health Nursing I Laboratory 3 hrs

This clinical course is focused on caring for adult clients with chronic illnesses. In most cases, clients are experiencing acute exacerbations of their chronic conditions. The needs of clients and family members (persons identified by the client as "family") are addressed as students practice primarily in inpatient settings. Special focus is placed on client teaching and on evidence-based interventions.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS330, NURS350 and NURS351

NURS350 Psychiatric/Mental Health Nursing 2 hrs

This course is designed in a lecture/discussion format to provide a foundation in professional psychiatric mental health nursing. Emphasis is placed on gaining knowledge of preventive interventions appropriate for provision of evidence-based, holistic nursing care to emotionally and mentally ill client(s) from across the life span. The legal, ethical and cultural considerations required to provide nursing care are stressed as well as concepts of primary mental health care, outpatient and community care.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS330, NURS331 and NURS351

NURS351 Psychiatric/Mental Health Nursing Laboratory 3 hrs

Students collaborate with patients, faculty, and professional health care providers primarily in public and private inpatient psychiatric hospitals. Students learn traditional and nontraditional treatment approaches; use the nursing process and evidence-based research to provide holistic, culturally competent direct care and have opportunities to observe the legal aspects of mental health care in function and have opportunities to observe legal aspects of mental health care.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

Coreq: NURS330, NURS331 and NURS350

NURS372 Nursing Research 2 hrs

In this course students will examine nursing research as it relates to nursing practice. Nursing research literature and the importance of evidence based nursing practice will be examined. Ethical issues involved in nursing research, adequacy of

existing research and application of nursing research will be explored.

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

NURS375 Essentials of Professional Nursing Practice II 3 hrs

This second of a three-course sequence builds knowledge of essential elements of professional nursing. Students explore ethical dilemmas of health care, leadership and management communication and critical thinking, health policies, economics, global health care, spiritual/cultural issues and legal aspects of nursing through active learning strategies. *Nursing (BSN) majors only.*

Prereq: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

NURS377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: nursing major

NURS404 Adult Health Nursing II 2 hrs

This course focuses on the nursing care of adult clients and families experiencing acute and chronic multiple complex health problems. The primary objective of this course is to apply and synthesize principles for the nursing care of adults with complex medical-surgical problems. Critical thinking, pathophysiology and nursing research will be emphasized in order to prepare the student for lifelong learning as a professional health care provider and to transition from the role of student to professional nurse.

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375;

Coreq: NURS405

NURS405 Adult Health Nursing II Laboratory 3 hrs

The primary objective of this clinical course is to apply and synthesize principles for the nursing care of adults with complex medical-surgical problems. The primary emphasis of this course is attainment of advanced clinical performance in adult health nursing. Additional emphasis will be placed on integration of research and teaching-learning skills in this course.

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375;

Coreq: NURS404

NURS450 Community Health Nursing 2 hrs

This course applies concepts and principles from nursing and public health sciences. Focus is on aggregates and communities using epidemiology and Healthy People 2010 objectives. Approaches to health concerns include all levels of prevention and interdisciplinary practice, case finding, case

coordination, ethical decision-making, community referrals and cultural brokerage.

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375;

Coreq: NURS451

NURS451 Community Health Nursing Practice 3 hrs

In this course students apply community health nursing concepts to the care of individuals, families, groups and communities in selected clinical settings. Nursing care will include health promotion, disease prevention as well as illness care to diverse groups of people across the lifespan.

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375;
Coreq: NURS450

NURS475 Essentials of Professional Nursing Practice III 3 hrs

This third of a three-course sequence builds knowledge of essential elements of professional nursing. This capstone course requires students to spend 100 hours in a precepted clinical practice setting chosen from a set of options. Students also attend seminar two hours per week to discuss selected leadership concepts. Students will analyze their portfolios and plan for their postgraduation professional growth. *Nursing (BSN) majors only.*

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375;

NURS477/478/479 Special Topics 1/2/3 hrs
Experimental courses or special topics in nursing may be offered.

Prereq: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375.

NURS497/498/499 Independent Study 1/2/3 hrs

A student may work with a faculty member independently to pursue a topic of interest to the student. Independent study is a student-initiated project.

Prereq: nursing major

Occupational Therapy Courses (OCTH)

OCTH100 Orientation to Occupational Therapy 3 hrs

An overview of roles and functions of occupational therapists in a variety of settings. Career information is explored including helping skills, comparison to other fields, salaries, outlook and application process.

OCTH177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

OCTH201 Exploring Occupational Performance in the Community 3 hrs

Through service learning experiences at community agencies, the student will be given opportunities to work with individuals with occupational dysfunction. A seminar will accompany the fieldwork to allow students to reflect upon their experiences, the barriers to participation that exist in the community and the impact of disability on occupation.

OCTH277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

OCTH287 Cooperative Education in Occupational Therapy 3 hrs

A two-course sequence that provides a work position designed to offer experience related to occupational therapy while the student receives academic credit and financial support. Available to students pursuing the profession of occupational therapy at the freshmen, sophomore or junior levels. Consists of either full-time work experience alternating with full-time attendance at the University, or a combination of part-time work and academic courses. Cooperative education does not substitute for occupational therapy Fieldwork I or II.

Prereq: approval of the Cooperative Education Office and program permission

OCTH350 Exploring Occupational Performance in the Context of a Disability 3 hrs

This course will provide opportunities for the student to reflect on the experiences of individuals with disabilities through the use of movies, documentaries, literary works, visual arts and a fieldwork experience. Students will explore the effect of the disability on the individual's quality of life and discuss occupational dysfunction.

OCTH377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

OCTH387 Cooperative Education in Occupational Therapy 3 hrs

A two-course sequence that provides a work position designed to offer experience related to occupational therapy while the student receives academic credit and financial support. Available to students pursuing the profession of occupational therapy at the freshmen, sophomore or junior levels. Consists of either full-time work experience alternating with full-time attendance at the University, or a combination of part-time work and academic courses. Cooperative education does not substitute for occupational therapy Fieldwork I or II.

Prereq: OCTH287

OCTH412 Models of Practice 3 hrs

This course will introduce the student to the theories and models of practice that are the foundations of practice in occupational therapy. Models from other fields that inform the occupational therapist's understanding of occupational performance will also be discussed. Students will analyze models and apply knowledge to selected cases.

Prereq: EDPS325 or IHHS260

OCTH419 Programming I 6 hrs

Students will have opportunities to learn methods of evaluating occupational performance issues present in selected conditions that affect the child from birth to adolescence. 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: OCTH412, OCTH495, OCTH500, OCTH502

OCTH420 Level I Fieldwork I 3 hrs

Exploring the role of an occupational therapist in a clinical setting.

OCTH477/478/479/480 Special Topics 1/2/3/4 hrs

Experimental courses or special topics in occupational therapy may be offered.

Prereq: department permission

OCTH495 Neurological Foundations of Human Occupation 3 hrs

Students will pursue knowledge in the neurosciences related to function and dysfunction of the central nervous system. Emphasis is placed on integrated brain function impacting daily living and occupational performance. Related clinical conditions will be correlated with research investigations that support appropriate and current interventions in occupational therapy.

Prereq: ZOO417; EDPS325 or IHHS260

OCTH497/498/499 Independent Study 1/2/3 hrs

Independent work following an approved plan to develop knowledge in specialized areas.

Prereq: department permission

Polymers and Coatings Program Courses (PC)

PC203 Miniaturization in Technology 3 hrs

Miniaturization as a scientific, sociological or economic driver in the evolution of technology is examined. This specialized history course focuses on technology development from the 19th through 21st centuries and illustrates how various industrial and consumer products and manufacturing processes have led to the current focus on nanotechnology.

PC310 Polymers for Engineers and Technologists 3 hrs

Introduction to polymer science, polymerization, polymer modifications, size and weight of

polymer molecules, plastics, adhesives, silicones, foams, surface coatings, fibers, elastomers, transitions and relaxations in polymers, rheology, polymer fabrication techniques.

Prereq: CHEM123/124 or department permission

PC377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

PC387 Cooperative Education in Interdisciplinary Technology 3 hrs

A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.

Prereq: department permission

PC400 Polymers and Coatings Technology I 3 hrs

Introduction to synthesis, film formation, structure, and properties of polymers commonly used in coatings. Polymer systems to be covered include acrylic, vinyls, polyesters, alkyds, oils, epoxies, epoxyesters, aminoplasts, urethanes, phenolics, hydrocarbons, cellulotics.

Prereq: CHEM371/372

PC401 Polymers and Coatings Technology I Laboratory 3 hrs

Synthesis, characterization and identification of polymers used in coatings. The synthesis of solution acrylic, vinyl, acrylic emulsion, polyester, alkyd, epoxyester, melamine formaldehyde and urethane polymers with extensive use of physical techniques such as GIRT, GP and calorimetry.

Coreq: PC400

PC402 Polymers and Coatings Technology II 3 hrs

Formulation in oil-based and waterborne coatings covering the use of solvents, pigments and additives. Principles of adhesion and corrosion, and the use of conversion coatings. Safety, health, government regulations and paint production techniques.

Prereq: PC400

PC403 Polymers and Coatings Technology II Laboratory 3 hrs

Practical formulation in oil-based and waterborne systems including the preparation and evaluation of various topcoats and primers currently used in the coatings industry (e.g., oil-based air-dry enamel, thermosetting coating, epoxyester primer, two-package urethane, acrylic latex and ED primer).

Coreq: PC402

PC405 Coating Processes I 3 hrs

Development of expertise in industrial coating processes. Substrate preparation, principles of adhesion, corrosion control, industrial coating materials, industrial coating systems and regulatory compliance in the coatings industry.

Prereq: PC310 or PC400 or department permission

PC407 Coating Processes II 3 hrs

Process and equipment for coatings application, economic analysis of coating operations, paint defects and line design for productivity and energy conservation.

Prereq: PC405 or department permission

PC416 Water-Based Coatings 3 hrs

A course to present the technology involved in preparing and utilizing water-based coatings (solvent-based, powder and others) are presented. The requirements for polymers and other ingredients of water-based coatings formulations are taught.

Prereq: PC310;

Coreq: PC400

PC460 Advanced Coatings Topics 3 hrs

Development of in-depth formulating skills; new technology areas in coatings and polymers.

Prereq: PC402, PC403 or department permission

PC477/478/479 Special Topics 1/2/3 hrs

An examination of topics in interdisciplinary technology not covered in other departmental offerings. Students may elect these courses more than once, provided different topics are studied.

Prereq: department permission

PC487 Cooperative Education in Interdisciplinary Technology 3 hrs

A minimum of three to four months of full-time employment in a business or industry that provides experiences directly related to the major area of study. Work sites must be approved in advance by the Interdisciplinary Technology Department. Regular employee benefits may be received during the employment period.

Prereq: department permission

PC497/498/499 Independent Study 1/2/3 hrs

Individual work in some area of interdisciplinary technology under the direction of a faculty member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be selected more than once, after resubmission and approval.

Prereq: department permission

General Activity Courses (PEGN)

PEGN101 Weight Control and Fitness 2 hrs

The purpose of the course is to relate pertinent information about the effects of exercise and nutrition upon the human organism, to understand its structure, function, capabilities and limitations, and experience some of the effects of exercise and improved nutrition.

PEGN102 Aerobic Dance 1 hr

A course in which the student can experience physical conditioning and fitness, utilizing dance and music as the medium for aerobic exercise.

PEGN103 Ballroom Dance 1 hr

Students will learn theory, technique and beginning patterns in merengue, swing, fox trot, waltz, tango and ballrooming.

PEGN104 Cardio Kickboxing 1 hr

A noncontact aerobic workout with the dynamic punching and kicking of the martial arts and boxing. Cardio Kick movements are very easy to follow and are choreographed to music. *This course may be repeated once for credit.*

PEGN108 Basketball 1 hr

The course is designed for the novice skilled player. The purpose is to learn the basics of individual and team play with emphasis on fundamentals.

PEGN110 Beginning Tae Kwon Do 1 hr

An introductory course showing the various techniques used in the art of self-defense. Students learn discipline, self-confidence and a vigorous physical activity.

PEGN111 Volleyball 1 hr

This course will provide opportunities to develop/improve basic volleyball skills, strategies and concepts via lecture, demonstration and laboratory experiences. The course is designed to enhance the student's performance and increase the enjoyment of participation.

PEGN115 Karate 1 hr

This is a beginner's course in the art of self-defensive movements. The aim of self defense is to protect oneself from attack to the point where escape is possible. The student will be introduced to a variety of defensive movement. *This course may be repeated once for credit.*

PEGN119 Women's Gymnastics 1 hr

An introductory course in the understanding of and participation in the various tumbling routines and apparatus used by women. Emphasis is on the ability to develop new skills and to provide an increase in the physical fitness of the participants.

PEGN122 Men's Gymnastics I 1 hr

This is a basic men's gymnastic skills class, and an introduction to the sport of gymnastics.

PEGN124 Fitness Walking 1 hr

This course is designed to provide students with basic knowledge of physical fitness and healthy lifestyle principles. Power walking is a program that trains muscular strength and endurance, flexibility, cardiovascular endurance and promotes total body health. *This course may be repeated once for credit.*

PEGN126 Conditioning Activities 1 hr

A beginning course designed for students with limited or no experience in physical fitness conditioning activities. A variety of activities will be used to promote the skills and knowledge for individual use.

PEGN128 Judo 1 hr

A beginning course in the martial arts of judo. Students will learn its history, as well as being able to demonstrate the various techniques.

- PEGN130 Assault and Rape Prevention** 1 hr
A course designed to develop skills that will help a person to: (1) recognize possible dangers to property and self, (2) identify alternatives to physical aggression and (3) use appropriate self defense techniques when physical aggression cannot be avoided.
- PEGN140 Marching Band** 1 hr
A class taken by "Permission Only" from the Music and Dance Department. Those accepted will be part of the EMU Marching Band and are expected to be available for practices and performances.
- PEGN142 Racquetball and Paddleball** 1 hr
Students will learn the fundamental skills of forehand, backhand and serving. The student will also be responsible for learning the basic rules, strategies and scoring before being given an opportunity to compete with fellow classmates.
- PEGN143 Fencing** 1 hr
An introductory course in the history of fencing and the fundamental skills and techniques for use of the foil. Emphasis is placed on the individual body movements and skills for a novice.
- PEGN145 Cross-Country Skiing** 1 hr
A course to give the student fundamental knowledge of cross-country skiing, covering: equipment, basic skills, waxing techniques, proper dress and survival. Students furnish their own equipment, or rental from the recreation area.
- PEGN146 Beginning Snow Skiing** 1 hr
A class designed to provide instruction in the basic fundamentals of downhill snow skiing at a recreational level.
- PEGN148 Tennis** 1 hr
This course is designed to promote skill development in the basic tennis strokes and to promote an understanding of rules, etiquette, scoring, strategies and singles and doubles play.
- PEGN149 Badminton** 1 hr
A beginning course in badminton to develop sufficient skill and knowledge to permit a person to enjoy it as a recreational sport. Students will learn the basic badminton strokes, scoring procedures, rules and etiquette.
- PEGN150 Golf** 1 hr
An introductory course focusing on basic instruction on the golf swing, woods and iron play, chipping, putting and playing from the sand. The course also covers golf etiquette and discusses different types of equipment used in today's game. The commercial establishment charges an extra fee.
- PEGN151 Bowling** 1 hr
This course is designed for the beginning bowler. The student will learn basic knowledge of all aspects of bowling to include: skills, scoring, rules, etiquette and common conversions. The commercial establishment charges an extra fee.
- PEGN152 Sailing** 1 hr
This course is designed for the novice/beginning sailor. The course will provide opportunities to develop basic sailing skills via lecture, demonstration and practical experience.
- PEGN153 Swimming** 1 hr
A course for those who cannot swim or are novice swimmers, to enhance their ability to enjoy water and its recreational fitness. The student will learn to practice safe habits and increase their knowledge and ability to swim using a variety of elementary strokes.
- PEGN177/178/179 Special Topics** 1/2/3 hrs
A one-, two- or three-hour experimental course of a subject to be listed by title.
- PEGN180 Yoga** 1 hr
This course is designed to teach the student the five key elements of yoga. It will include exercises, breathing, relaxation and meditation techniques. *This course may be repeated once for credit.*
- PEGN190 Extramural Club Sports** 1 hr
The purpose of this course is to promote physical activity by participation in extramural club sports recognized by Campus Life, and the Rec/IM Department. Students will be required to attend all practices and club organized competitions throughout the semester. *This course may be repeated once for credit.*
- PEGN193 Swing Dance I** 1 hr
This course is designed to teach students the theory, technique and beginning patterns in triple time and single time swing, West Coast swing, the hustle and ballrooming. *This course may be repeated once for credit.*
- PEGN201 Fitness Activities** 1 hr
This course is designed to provide students with a background in physical fitness, exercise and health principles and practices. These principles will be applied to personal exercise and health programs through activities such as target heart rate monitoring, body measurements, posture analysis, energy intake and expenditure assessments. *This course may be repeated once for credit.*
- PEGN203 Latin Dance** 1 hr
This course is designed to provide students with the technical and foundations in Latin dance. This is a beginning level course. *This course may be repeated once for credit.*
- PEGN210 Lifetime Wellness and Fitness** 2 hrs
A lecture course covering the essential elements of wellness and fitness. The course is geared toward entering freshmen.
- PEGN211 Intermediate Volleyball** 1 hr
An advanced course designed to develop and increase the students' ability to perform specific skills necessary for participation in the game of volleyball. The intermediate skills plus offensive and defensive strategies will be stressed.
- PEGN215 Tai Chi** 1 hr
This course is designed to teach students the simplified "24-forms" tai chi chuan which was standardized in China and has been popularized around the world. *This course may be repeated once for credit.*
- PEGN220 Varsity Rifle Team** 1 hr
This course is a coed rifle team. The course of instruction will cover the fundamentals of rifle marksmanship and firearms safety. It will focus on the National Rifle Association (NRA) basic rifle course, NCAA rifle team guidelines and the NRA small bore rifle rules for competition. The team practices and competes using three positions, which are the prone, standing (off-hand) and kneeling positions. Throughout the course, safety and the proper use of equipment are reinforced. The majority of competitions are held on campus.
- PEGN222 Men's Gymnastics II** 1 hr
This is a continuation of the knowledge and skills learned in Gymnastic I, and applied to more advanced routines on the different apparatus.
- PEGN224 Jogging** 1 hr
A course designed to provide the student with endurance training experience through jogging. The students will receive information regarding the control of intensity, duration and frequency of endurance type exercise in the promotion of optimal cardio-respiratory fitness.
- PEGN226 Weight Training** 1 hr
A beginning course for the student to gain knowledge and skills that will permit a novice to organize a personal weight training program, and measure the effects of such a program on his/her physical fitness components.
- PEGN229 Varsity Soccer** 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of soccer. Permission required.
- PEGN230 Varsity Cross Country** 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of cross country. Permission required.
- PEGN231 Varsity Football** 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of football. Permission required.
- PEGN232 Varsity Basketball** 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of basketball. Permission required.
- PEGN233 Varsity Swimming** 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of swimming. Permission required.

PEGN234 Varsity Gymnastics 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of gymnastics. Permission required.

PEGN235 Varsity Wrestling 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of wrestling. Permission required.

PEGN236 Varsity Track 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of track. Permission required.

PEGN237 Varsity Baseball 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of baseball. Permission required.

PEGN238 Varsity Golf 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of golf. Permission required.

PEGN239 Varsity Tennis 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of tennis. Permission required.

PEGN240 Varsity Volleyball 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of volleyball. Permission required.

PEGN242 Varsity Softball 1 hr
A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of softball. Permission required.

PEGN256 Basic River Kayak 1 hr
The basic river kayak course is a program emphasizing safety, enjoyment and skill acquisition for entry-level through intermediate levels for individuals in public, private and commercial settings. *This course may be repeated once for credit.*

PEGN277/278/279 Special Topics 1/2/3 hrs
A one-, two- or three-hour experimental course of a subject to be listed by title.

PEGN310 Intermediate Tae Kwon Do 1 hr
A continuum of the beginning tae kwon do (TKD) course designed for students who have mastered the initial skills and wish to advance their knowledge and skills towards a higher TKD-ability class belt.

PEGN348 Basic Scuba Diving 1 hr
This course will provide the student with the knowledge and skills to safely enjoy and gain limited experience in the diving environment under normal open water diving conditions. The course

prepares students for open-water scuba diving certification by the Professional Associate of Diving Instructors. *This course may be repeated once for credit.*

PEGN377/378/379 Special Topics 1/2/3 hrs
A one-, two- or three-hour experimental course of a subject to be listed by title.

PEGN477/478/479 Special Topics 1/2/3 hrs
A one-, two- or three-hour experimental course of a subject to be listed by title.

PEGN497/498/499 Directed Study 1/2/3 hrs
Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation, and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above and who have completed the appropriate background courses.

Prereq: department permission

Physical Education Courses (PHED)

PHED100 History and Foundations of Physical Education 2 hrs
A lecture and discussion course in the history and foundation of physical education. This course is an examination of the influence of selected cultures, peoples and events that have contributed to the development of the physical education discipline.

PHED177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

PHED200 Anatomy and Physiology 5 hrs
A textbook course, supplemented by lectures and demonstrations, on the structure and functions of the bones, joints and muscles and the organs of digestion, respiration and excretion.

PHED204 Kinesiology (Biomechanics of Physical Activity) 3 hrs
A required class for sports medicine and physical education majors/minors to scientifically analyze the techniques involved in the performance of human movement skills.

Prereq: PHED200 or SPMD201/ATTR201 and SPMD202/ATTR202

PHED209 Bio-Fitness 2 hrs
Individual biological needs and how those needs are related to daily habits. Students will complete an individual fitness profile that will be the basis for understanding how desirable changes in fitness are achieved.

PHED215 Methods of Teaching Individual Sports 3 hrs
A required class for physical education majors/minors who are preparing to teach individual sports in the elementary and secondary schools. Instruction in the teaching, performance, analysis and evaluation of selected fundamental badminton, golf and tennis skills.

Prereq: admission to the teacher education program

PHED217 Methods of Teaching Team Sports 3 hrs
A required class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction in the teaching, performance, analysis and evaluation of fundamental basketball, softball and volleyball skills will be presented.

PHED219 Methods of Teaching Rhythmic Activities, Fundamental Movement and Movement Education 3 hrs
A required class for physical education majors who are preparing to teach in elementary and secondary schools. Instruction will focus on the teaching, performance, analysis and evaluation of fundamental rhythmic, social dance, locomotor, nonlocomotor and manipulative skills and creative movement activities.

PHED231 Service Teaching 1 hr
This is an individual program under the direction of a qualified faculty member, to enhance the student's ability to gain additional professional experience. Permission required.

PHED233 Service Teaching 1 hr
For qualified students an additional opportunity to undertake an individualized program under the direction of a qualified faculty member. Permission required.

PHED257 Physical Education for the Classroom Teacher 2 hrs
A methods and materials course in which the prospective classroom teacher gains knowledge in organizing and implementing a physical education program. Not intended for students majoring in physical education.

Prereq: admission to the teacher education program

PHED260 Motor Development 2 hrs
A required course for physical education majors and minors. Instruction will focus on principles of motor development, with implications for learning gross motor skills. Consideration of the factors associated with individual differences in attaining motor proficiency during childhood and adolescence will be examined.

PHED277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

PHED282 Perceptual-Motor Training 1 hr
Planning and effecting gross motor activity programs for students with neurological dysfunction. Assessment procedures and activity sequences. Supervised field experiences required.

PHED287 Cooperative Education 3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office, and department permission

PHED300/SPMD300 Physiology of Exercise 4 hrs
A lecture/laboratory course concerned with human responses and adaptations to muscular activity. The enhancement of health and physical fitness for the general population, optimizing performance in the various types and levels of competitive athletics.
Prereq: PHED200 or SPMD201/ATTR201 and SPMD202/ATTR202

PHED305 Practical Concepts of Conditioning 2 hrs
A practical experience in applying the concepts and theories of conditioning to in-class situations as well as coaching. Programs such as interval training will be designed and experienced by the student for use in a particular situation.

PHED312 Athletic Training and Physiotherapy 2 hrs
For prospective coaches and physical educators. Principles and skills of athletic training and physiotherapy. Lectures, demonstration and practice of massaging, bandaging, taping and therapeutic measures as applied in athletic activities and injuries.

PHED315 Methods of Teaching Conditioning Activities 2 hrs
A required lecture/laboratory class for physical education majors/minors who are preparing to teach in elementary and secondary schools. Instruction will focus on the practical application of physical fitness and wellness concepts.
Coreq: PHED300/SPMD300

PHED316 Foundations of Coaching 2 hrs
Practical and scientific information necessary for the implementation of a successful coaching program.

PHED317 Methods of Teaching Elementary Physical Education 2 hrs
A required course for physical education majors who are preparing to teach and direct physical education experiences for elementary school children. The course focuses on theory and practical experience in physical education in the elementary school. It presents a variety of activities and teaching styles needed to meet the needs of children in the elementary school years.
Prereq: PHED260

PHED319 Methods of Teaching Aquatics 2 hrs
An elective course for physical education majors/minors. Aquatics covers the teaching of the four competitive swimming strokes; front crawl, back crawl, breast stroke and butterfly. In addition, life saving strokes, side-stroke and elementary back-stroke are studied to prepare students to teach swimming in physical education classes.

PHED330 Adapted Physical Education 3 hrs
A lecture and participation course covering the philosophy and goals of adaptive physical education, the relationship of adaptive physical education to the general physical education program, the needs and characteristics of the students with disabilities, and the designing of exemplary adapted physical education programs. Supervised fieldwork required.
Prereq: PHED260

PHED331 Service Teaching 1 hr
Provides additional individual opportunities at an advanced level. Permission required.

PHED333 Service Teaching 1 hr
For the advanced student who has shown some interest in undertaking a research project for professional development. Permission required.

PHED353 American Red Cross Lifeguarding 3 hrs
American Red Cross (ARC). This course covers CPR for the professional rescuer (CPR-PR), first aid and in-water rescue skills. ARC lifeguarding certificates are awarded upon successful course completion.

PHED354 American Red Cross Water Safety Instructor 2 hrs
The purpose of this course is to train instructor candidates to teach courses in the American Red Cross Swimming and Water Safety program by developing their understanding of how to use course materials, how to conduct training sessions and how to evaluate participant's progress. Demonstration, explanation, utilization of course manuals and materials, videos and digital video discs (DVDs), analysis and practice of teaching skills are used to carry out course objectives. American Red Cross certification in Fundamentals of Instructor Training (FIT) and Water Safety Instructor are offered upon successful completion.
Prereq: PEGN153 or instructor permission

PHED360 Motor Learning 3 hrs
A required course for physical education majors. Instruction will focus on learning the processes underlying skilled performance, how skilled performances are learned and how to apply the principles of skilled performance and learning in teaching and coaching situations.
Prereq: PHED260 or instructor permission

PHED370 Physical Education Applied Technologies 2 hrs
This required course provides an overview of how technology can be integrated into the physical education and coaching professions. Through the use

of the World Wide Web, lecture/demonstrations and hands-on experiences, students use and evaluate a variety of software applicable to school and nonschool settings.
Prereq: junior standing

PHED377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PHED381 Motor Development of the Young Child 3 hrs
A course designed specifically for early childhood minors and others interested in young children. A study of the sequential development of motor skills during early childhood with focus on children ages birth to eight years. Investigation and application of the major learning theories in relationship to motor behavior, with specific implications for motor development programs for students of different abilities. Methods of assessment and developmentally appropriate practices for planning and conducting movement curricula will be addressed. No credit in PHED260.

PHED387 Cooperative Education in Physical Education 3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office and department permission

PHED388 Assessment in Adapted Physical Education 1 hr
A study of the process of assessing gross motor functioning of students who exhibit a variety of disabilities. Investigation of the legislative mandates requiring assessment and application of the latest assessment instruments for students with disabilities. Fieldwork required.
Prereq: PHED330

PHED389 Sport and Activity for the Disabled 1 hr
A course designed to investigate sports organizations that serve people with disabilities. Topics to be explored include the role of the United States Olympic Committee (USOC), Group E members of the USOC and Committee on Sports for the Disabled, classification of athletes for competition, role of the National Governing Bodies in promoting sports and ways people with disabilities can access sports and noncompetitive opportunities.

PHED400 Philosophical Aspects of Physical Education and Sport 2 hrs
This course challenges students to discover the essence of physical education and sports throughout philosophy. Students will examine why we play, what we value, who we are, how we know, through physical education. This lecture/discussion course is required for physical education majors.
Prereq: PHIL100 and junior or senior standing

PHED405/WGST405
Women in Sports 3 hrs
Patterns, problems, and conditions associated with women's sports involvement in selected world cultures; the sportswoman in American society.

PHED415 Curriculum and Instruction in Physical Education 3 hrs
Methods and use of materials in the teaching of activities in the elementary and secondary grades. Unit and lesson planning, classroom management, audio-visual aids. Observations of physical education classes at different levels required. Entry into College of Education required.
Prereq: PHED260; admission to the teacher education program

PHED421 Legal Aspects of Sport, Physical Education, and Recreation 2 hrs
Individual rights, due process, selected legal concepts and principles, liability, safe environments, risk management, contracts, insurance and other selected topics.
Prereq: senior standing

PHED434 Adapted Preschool Physical Education 1 hr
This course presents instructional strategies and curricular models of instruction for preschool-aged children (age three to five) with special needs or who are at-risk for disabilities and school failure. Planning and effecting gross motor activity programs, assessment procedures and activity sequences will be emphasized. Legislative mandates and rationale for the development of preschool motor activity programs will be discussed. Supervised field experience required.
Prereq: PHED334

PHED454 American Red Cross Lifeguard Instructor 2 hrs
The purpose of this course is to train instructor candidates to teach courses in the American Red Cross Lifeguarding program by developing their understanding of how to use course materials, how to conduct training sessions and how to evaluate participant's progress. Demonstration, explanation, utilization of course manuals and materials, videos and digital video discs (DVDs), analysis and practice of teaching skills are used to carry out course objectives. American Red Cross certification in Fundamentals of Instructor Training (FIT) and Lifeguard Instructor (LGI) are offered upon successful completion.
Prereq: PEGN353 or instructor permission

PHED470 Assessment and Evaluation in Physical Education 2 hrs
The discriminating selection, administration, interpretation and use of standardized tests and measurements in physical education. Entry into College of Education required.

PHED477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PHED487 Cooperative Education in Physical Education 3 hrs
One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Prereq: nine credit hours in concentration, approval by Cooperative Education Office and department permission

PHED490 Field Experience in Adapted Physical Education 4 hrs
Required course for "teachers of physical education for handicapped individuals; approval." A directed 15-week field experience in teaching physical education to handicapped persons in a school setting.
Prereq: department permission

PHED495 Senior Seminar 1 hr
A synthesis of educational theories presented in the undergraduate physical education program and the student teaching experience.
Coreq: EDUC496 and EDUC497

PHED497/498/499 Directed Study 1/2/3 hrs
Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above, and who have completed the appropriate background courses.
Prereq: department permission

Philosophy Courses (PHIL)

PHIL100 Introduction to Philosophy 3 hrs
An introduction to philosophy by the study of important philosophical thinkers, problems and methodologies.

PHIL110 Philosophies of Life 3 hrs
An introduction to differing accounts of what constitutes a meaningful life and how an individual can attain it. Representative topics include the notions of pleasure, love, empathy and power as discussed by such writers as Plato, Epicurus, Nietzsche, Lao Tse and Buddha.

PHIL120 Introduction to Critical Reasoning 3 hrs
An introduction to the techniques of identifying and evaluating arguments. The emphasis will be on the enhancement of reasoning skills through the study of arguments in their natural setting in newspapers, political speeches, advertising, etc. The course also may include such related topics as fallacies, inductive reasoning and the logic of explanation in the social sciences.

PHIL130 Introduction to Logic 3 hrs
An introduction to the analysis of arguments using the theory and techniques of formal logic. The theory underlies most formal systems, including computer applications. Students learn such concepts as deduction and induction and how to prove that arguments are valid or invalid.

PHIL177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

PHIL181 Logic and Model Theory 3 hrs
This course is designed to teach students the methods and principles of mathematical and philosophical logic, both deductive and inductive. Students will learn model theory, natural deduction, formal methods of proof and the methods and principles of inductive logic and probability.

PHIL212 Philosophy of Art 3 hrs
Can "art" be defined? Do artists owe a responsibility to society? Should works of art be primarily analyzed as "significant form" or as an expression of the artist's personality? Can we isolate a uniquely "aesthetic" attitude? Through considering such questions, the course introduces the student to philosophical reasoning and analysis.

PHIL215 Philosophy of Religion 3 hrs
A philosophical study of the nature, goals and proper function of religion. Some possible topics are traditional arguments for the existence of God, grounds for disbelief in God, immortality, religious experience, the nature of religious language, the relation of science to religion, the role of faith and revelation, the connection between religion and ethics.

PHIL220 Ethics 3 hrs
An introduction to the basic ethical theories and ethical problems in the Western philosophical tradition. Such problems may include: the nature of value, the justification of ethical decisions, the idea of obligation and the concept of human rights. Applications of ethical theory to specific ethical issues may concern both personal relationships and important contemporary issues.

PHIL221 Business Ethics 3 hrs
A consideration of ethical questions regarding business practices in a global environment. Students will be introduced to ethical theory and critical reasoning. They will use these tools to critically examine the market system itself, as well as practices of multinational business. Students will explore the ethical responsibilities of corporations with regard to employees, consumers and other stakeholders.

PHIL223 Medical Ethics 3 hrs
An examination of the relationships between contemporary values in the medical profession and traditional ethical values. Students will investigate various ethical theories and critically examine controversial issues in medicine.

PHIL225 Political Philosophy 3 hrs
Examines the philosophical bases of political ideology and theory through analysis of a variety of political theories, their component parts, and their basic assumptions. Examples may be taken from the works of such writers as Plato, Aristotle, Hobbes, Locke, Rousseau, Mussolini, Marx and Thoreau.

PHIL226/WGST226 Feminist Theory 3 hrs
A consideration of philosophical issues concerning the nature and status of women. Readings from both traditional and contemporary sources. Topics may include scientific and religious views, the ideal society and women's place in it, varieties of feminism, views on sexuality, family and reproduction, and work and the economy.

PHIL228 Global Ethics 3 hrs
An exploration of major ethical traditions from around the world in their application to particular moral issues such as reproduction, the environment, war, punishment, human rights, development, biomedical issues and euthanasia.

PHIL260 Existentialism 3 hrs
An examination of contemporary existentialist thought about the nature of reality and human existence as reflected in the works of such philosophers as Marcel, Heidegger, Sartre and Camus and the sources of existentialism as found in the works of Kierkegaard and Nietzsche.

PHIL277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

PHIL281 Symbolic Logic 3 hrs
An introduction to the notation and proof procedures of symbolic logic with emphasis upon the clarification and development of the notion of a formal language.

PHIL291 Introduction to Asian Philosophy 3 hrs
This course is an overview of the rich philosophical traditions of South and East Asia. The course will introduce a number of major philosophers, texts, and movements across Hindu, Buddhist and Chinese/Japanese Traditions.

PHIL310 Aesthetics 3 hrs
A study of philosophical issues relating to works of art and other aesthetic objects. Possible topics include the nature of aesthetic attitude, evaluation, aesthetic meaning and truth, expression in art, the nature of a work of art and basic value of art, the kinds of concepts used to talk about the arts.
Prereq: one course in philosophy other than PHIL120 or PHIL130

PHIL325 Theory of Knowledge 3 hrs
An investigation of the nature, scope and limits of knowledge. Some possible topics are the connection between belief and knowledge, knowledge of other people's minds, the reliability of memory, the possibility of certainty in knowledge, theories of truth.
Prereq: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

PHIL330 History of Philosophy: Ancient 3 hrs
A study of important philosophical developments in western thought from the pre-Socratics through Aristotle. Covers the pre-Socratics, Socrates, Plato and Aristotle.
Prereq: one course in philosophy other than PHIL120 or PHIL130

PHIL331 History of Philosophy: Modern 3 hrs
A study of important philosophical developments in Europe from the Renaissance to the early 19th century. Covers such figures as Descartes, Spinoza, Leibnitz, Hobbes, Locke, Berkeley, Hume and Kant.
Prereq: one course in philosophy other than PHIL120 or PHIL130

PHIL332 History of Philosophy: 19th Century 3 hrs
An introduction to the major philosophical themes of the 19th century that dominate 20th century European thought. These themes include the collapse of German Idealism and Romanticism, the death of God, the nature of historical process, evolutionary theory and the implications of these themes for the concept of human freedom.
Prereq: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

PHIL355 Philosophy of Law 3 hrs
A consideration of philosophical questions about the law such as: What sorts of behavior should be illegal? What is punishment supposed to accomplish? When are we justified in punishing a person? How do judges arrive at decisions? Are there really legal principles that cover all the hard cases judges must deal with or do they use their own personal moral values? What is a legal system and how does it differ from a moral code?

PHIL370 Philosophy and Narrative 3 hrs
This course will focus on philosophical issues relevant to one or more of the following topic areas: philosophical issues in literature and film, theories of drama and performance, the politics of narrative, and recent hermeneutical theory. *May be repeated for credit with department permission.*
Prereq: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL232, PHIL260 or PHIL390

PHIL375 Metaphysics 3 hrs
A study of questions concerning basic structure and ultimate nature of reality. Possible topics include universals and particulars, space and time, determinism and freedom, the self, materialism, idealism, substance and process.
Prereq: one course in philosophy other than PHIL120 or PHIL130

PHIL377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PHIL380 Philosophy of Science 3 hrs
A systematic examination of the main philosophical problems raised by the results and methods of the physical and social sciences. Topics include the problem of meaning, measurement, the interpretation of probability statements, the justification of induction, the concept of cause, the laws of nature, description and explanation, determinism and indeterminism.
Prereq: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL325

PHIL390 Phenomenology 3 hrs
The course attempts to trace the history and development of the phenomenological movement from its origins in the notion of the intentionality of consciousness, beginning with the work of Edmund Husserl and continuing with the later "existential" developments in the field by such thinkers as Heidegger, Sartre and Merleau-Ponty. The course also will study the impact of phenomenology on such varied fields as psychology, sociology and literature.
Prereq: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL331 or PHIL260

PHIL391 Philosophy of Early China 3 hrs
This course is an in-depth study of the major Chinese philosophical texts, which were seminal with regard to the subsequent 2000 years of Chinese thought and culture and which are still relevant to contemporary philosophical concerns. Possible texts include: Sunzi's *Art of War*, the *Yijing*, Confucius' *Analects*, Laozi *Daodejing*, Zhuangzi, Mencius and Xunzi.

PHIL426/WGST426 Topics in Gender and Philosophy 3 hrs
An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory.
Prereq: two courses in philosophy other than PHIL120 or PHIL130

PHIL442 Philosophy of Mind 3 hrs
A philosophical study of the nature of mind. Examines the logical relations among mental concepts such as consciousness, choice, intention, emotion, feeling, the unconscious; also treats human action, and the possibility and meaning of an adequate explanation of psychological phenomena.
Prereq: two courses in philosophy other than PHIL120 or PHIL130

PHIL460 Philosophy of Language 3 hrs
A study of the main philosophical problems raised by twentieth century European philosophy. Topics include: the nature of humanity; institutional power and individual agency; the meaning of sexuality and gender; language, the media, and knowledge. Critical social theory, postmodern philosophy and deconstruction are examined.
Prereq: two courses in philosophy

PHIL470 Contemporary European Philosophy 3 hrs
An exploration of recent developments in European thought. Possible topics include post-structuralist

evaluations of Western institutions and ideas, post-Marxist critical theory, the hermeneutic effort to establish interpretation as the basis of philosophical understanding, and the effect of deconstructive thought on philosophy and literature.

Prereq: two courses in philosophy other than PHIL120 or PHIL130; recommended: PHIL332, PHIL260 or PHIL390

PHIL471 Early Analytic Philosophy 3 hrs

An examination of some of the major philosophical developments in England and the United States since approximately 1900. Considers logical atomism, logical positivism, pragmatism and ordinary language philosophy as reflected in the works of such philosophers as Russell, Carnap, Ayer, James, Dewey, Ryle, Austin, Quine and Wittgenstein.

Prereq: two courses in philosophy other than PHIL120 or PHIL130; recommended: PHIL331

PHIL475 Philosophy of Mathematics 3 hrs

This course focuses on philosophical issues in mathematics. What, if anything, is mathematics about? Are there mathematical truths? If so, how can we know them? What is the correct methodology of mathematics? Are the principles of mathematics independent of mind and language? Students will read both classic and contemporary works in the philosophy of mathematics.

Prereq: PHIL130, PHIL181, or PHIL281 or department permission

PHIL477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

PHIL497/498/499

Independent Study 1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course. Restricted to juniors and seniors majoring or minoring in philosophy.

Prereq: department permission

Physics Courses (PHY)

PHY100 Physics for

Elementary Teachers 3 hrs

Designed to stimulate interest in physics by the use of simple and inexpensive equipment to demonstrate scientific principles. Motion, forces, sound, light, heat, electricity and magnetism. *Does not count toward a physics major or minor. Open only to students pursuing any curriculum for elementary teachers.*

PHY101 Physical Science in the Arts 4 hrs

This course is designed to give students a general background in the basic principles of physics, as applied to art, music and dance, with an emphasis on exploring the nature of music and its production. Laboratory experiments complement the lecture by providing hands-on experiences to verify and dem-

onstrate those principles. Three lecture hours and one two-hour laboratory per week. *Does not count toward a physics major or minor.*

PHY110 Physical Science 4 hrs

Designed for the non-science major with little or no background in science or mathematics. Provides a more perceptive view of physical reality by introducing central ideas, principles and relationships of physical science that relate to one's everyday environment. Students in science, medicine or engineering should take physics courses PHY221 and PHY222, or PHY223 and PHY224. *Does not count toward a physics major or minor.*

PHY177/178/179 Special Topics 1/2/3 hrs

This special topics course will be used to teach aspects of physics at an elementary level that would not be regularly offered. A new course may be taught on an experimental basis with this offering. *Prereq: see department for prerequisites*

PHY221 Mechanics, Sound and Heat 4 hrs

The first course of an introductory two course sequence in college-level physics. Topics include particle motion, Newton's laws of motion, conservation laws, gravitation, rotation, harmonic motion, sound and thermodynamics. Laboratory: two consecutive hours, one day per week. All physics majors, minors and pre-engineers must elect PHY223.

Prereq: (MATH105 or MATH119) and MATH107, with a C or better in each course; or MATH112; or MATH120

PHY222 Electricity and Light 4 hrs

A continuation of PHY221. Topics include electrostatics, fields, potentials, current, magnetism, DC and AC circuits, and geometrical and physical optics. Laboratory: two consecutive hours, one day per week. All physics majors, minors and pre-engineers must elect PHY224.

Prereq: PHY221 or PHY223; (MATH105 or MATH119) and MATH107, with a C or better in each course; or MATH112; or MATH120

PHY223 Mechanics and Sound 5 hrs

A basic, calculus-based course in physics for students majoring in physical science and those on a pre-engineering curriculum. Topics include kinematics, Newton's laws, work and energy, conservation laws, rotational motion, oscillations and sound. Laboratory: two consecutive hours, one day per week.

Prereq: MATH120

PHY224 Electricity and Light 5 hrs

A continuation of PHY223. Static and current electricity, magnetism and light. Laboratory: two consecutive hours, one day per week.

Prereq: PHY223; MATH121

PHY229 Strength and Elasticity of Materials 4 hrs

Fundamental principles of mechanics applied to solids. Equilibrium, elasticity, stress and strain, generalized Hooke's Law, tension, torsion, shear, bending, deflection of beams, theory of columns and strain energy. Four lecture-recitation periods per week. Laboratory required.

Prereq: PHY223; MATH121

PHY230 Engineering Dynamics 4 hrs

Vector representation of physical quantities. Statics of rigid bodies. Friction, kinematics of particles and rigid bodies. Dynamics of particles and rigid bodies. Work and energy. Four lecture-recitation periods per week.

Prereq: PHY223; MATH121; MATH122

PHY277/278/279 Special Topics 1/2/3 hrs

This special topics course will be used to teach aspects of physics at an intermediate level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.

Prereq: see department for prerequisites

PHY297/298/299

Independent Study 1/2/3 hrs

An intensive study of a problem or group of problems under the direction of a department faculty member.

Prereq: approval by the faculty member and department permission

PHY311 Teaching Elementary

Physical Science 3 hrs

Designed particularly for teachers in elementary science. An elementary study of motion, forces, energy, matter, heat, sound, light, magnetism and electricity. Focus is on simple experimental projects, followed by class discussions. Most of the apparatus will be made from materials available in the home or at a variety store. Offered only to elementary education students.

Prereq: PHY100

PHY312 Electricity Experiments

for Elementary Teachers 3 hrs

A practical course designed to help elementary teachers learn the basics of electricity and electrical safety. Students will use grade-level appropriate mathematics, equipment and measurement devices to investigate simple circuits. Electrical energy production, use and conservation will be discussed with reference to U.S. consumers in a global context. Only open to elementary education students.

Prereq: PHY100

PHY325 Methods of Teaching

the Physical Sciences 3 hrs

A study of strategies and procedures used in secondary school teaching. Students will be provided with the opportunity to familiarize themselves with the newer science curricula; visit secondary school classrooms; present classroom demonstrations and conduct laboratory work; learn to use modern teaching aids, especially the computer, in classroom teaching; and develop means of evaluating cognitive and affective learning. Two recitation and two laboratory hours per week. Open to prospective teachers following the junior-senior high school curriculum who are majoring or minoring in integrated science or a physical science. Not open to students on academic probation.

Prereq: CURR305 and junior standing or department permission; admission to the teacher education program

- PHY330 Intermediate Mechanics I** 3 hrs
 The statics and dynamics of a particle, projectiles with air resistance, central forces, dynamics of a system of particles, vibrational motion and pendulums.
Prereq: PHY224; MATH121; MATH122
- PHY332 Mechanics Laboratory** 1 hr
 A laboratory course providing experimental studies in intermediate mechanics. Three hours of laboratory per week.
Prereq/Coreq: PHY330
- PHY350 Electricity and Magnetism I** 3 hrs
 An introductory course dealing mainly with electrostatics and magnetostatics. The following topics will be covered: vector calculus; Coulomb's law; Gauss's and Ampere's law; electric and magnetic fields; potentials and potential energies; solution of Laplace's equation for rectangular, cylindrical and spherical geometries in the presence of conductors, dielectrics and magnetic materials; electric and magnetic susceptibilities; resistance; capacitance; inductance; electromotive force; and electromagnetic induction.
Prereq: PHY224; MATH223
- PHY360 Heat and Thermodynamics** 4 hrs
 An intermediate course in the study of heat and thermodynamics. The course will include an introduction of the fundamental concepts followed by specific topics, including thermal expansion, specific heat, change of state, elementary kinetic theory, thermodynamics laws, entropy and other thermodynamic functions. No prior knowledge of thermodynamics is presumed.
Prereq: PHY222 or PHY224; MATH223
- PHY370 Introduction to Modern Physics** 3 hrs
 An introduction to modern physics and relativity. The qualitative interpretation, according to the modern quantum theory, of experimental results in atomic and nuclear physics.
Prereq: MATH121; PHY222 or PHY224
- PHY372 Modern Physics Laboratory** 1 hr
 A laboratory course providing experimental studies in such areas as late classical, relativistic, quantum, and nuclear physics. Three hours of laboratory per week.
Prereq/Coreq: PHY370
- PHY377/378/379 Special Topics** 1/2/3 hrs
 This special topics course will be used to teach some aspects of physics at an advanced level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.
Prereq: see department for prerequisites
- PHY387 Cooperative Education in Physics** 3 hrs
 Four to six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in physics. The program consists of two work experiences (PHY387/487) alternating with full-time attendance at the University. *Use toward a physics major or minor subject to department permission. Offered on a graded credit/no-credit basis.*
Prereq: junior standing; admittance by application only
- PHY390/391 Physics Project** 2 hrs each
 A suitable project in physics is to be done on an individual basis. Arrangements must be made with a physics faculty member before the beginning of the semester.
Prereq: department permission
- PHY397/398/399 Independent Study** 1/2/3 hrs
 An intensive study of a problem or group of problems under the direction of a department faculty member.
Prereq: approval by the faculty member and department permission
- PHY406 Ethical Issues in Physics** 1 hr
 Ethical issues that a career physicist may encounter are studied and discussed. Historical accounts and essays are used to illustrate potential ethical conflicts associated with interactions within the scientific community as well as interactions between the scientific community and society at large.
Prereq: PHY224
- PHY417 Undergraduate Research Laboratory** 2 hrs
 Laboratory work of a research nature done under the direction of a staff member working on a research problem. One problem will extend through the semester, with a comprehensive report required. Six hours are to be spent in the laboratory each week. Arrangements must be made with the department before the beginning of the semester. *Open to seniors nearing completion of a physics major.*
Prereq: department permission
- PHY420 Capstone Project** 3 hrs
 This course provides the opportunity to synthesize knowledge of a wide range of physics and engineering topics into a research or design project, from concept development, through test and analysis, to final report. Assessment and development of concept knowledge and practical skills are integral to this course.
Prereq: (PHY230 or PHY330), PHY360 and PHY370
- PHY431 Intermediate Mechanics II** 3 hrs
 A continuation of PHY330. Mechanics of a rigid body, generalized coordinates, the Lagrangian and Hamiltonian functions, relative motion.
Prereq: PHY330, MATH223
- PHY436 Vibration and Sound** 4 hrs
 Detailed studies of vibration and wave motion with specific emphasis on acoustic waves in air and other media. Reflection, refraction and interference of sound; vibrating strings and air columns; electroacoustic transducers; architectural acoustics. Laboratory required. Laboratory meets once per week for three hours.
Prereq: PHY222 or PHY224; MATH223
- PHY442 Optics and Optics Laboratory** 4 hrs
 An intermediate course with a laboratory dealing with fundamentals of geometrical, physical and quantum optics. Topics covered include: reflection, refraction, lenses and optical instruments, spectroscopes and spectra, interference, diffraction and polarization. Three hours of laboratory per week.
Prereq: PHY222 or PHY224; MATH121
- PHY444 Applied Optics** 2 hrs
 A combined lecture/laboratory course covering applications of optics. Applications include, but are not limited to, polarized light devices, laser operation, holography, image processing and fiber optics. Lecture: one hour per week. Laboratory: three consecutive hours per week.
Prereq: PHY224
- PHY450 Electricity and Magnetism II** 3 hrs
 A brief review of electrostatics and magnetostatics. The following topics will be covered: Faraday's Law, displacement current, Maxwell's equations, Poynting vector, plane wave solutions, polarization, wave propagation in dielectrics and conductors, dispersion, Fresnel's equations, guided waves, dipole radiation, Lienard-Wiechert potentials, and radiation theory.
Prereq: PHY350; MATH325
- PHY452 Electrical Measurements** 4 hrs
 An intermediate course in electricity. The fundamental principles involved in measuring electric and magnetic quantities, the use of high-grade electrical apparatus. Experiments include studies of galvanometers, Wheatstone bridges of various forms, potentiometers and standard cells, vacuum tubes, magnetic measurements and methods of measuring capacitance and inductance. Laboratory: four consecutive hours, one day per week.
Prereq: PHY221/PHY223 and PHY222 or PHY224
- PHY456 Electronics for Scientists** 4 hrs
 Theory and application of passive and semiconductor circuit elements. Analog and digital circuit analysis and design problems. Lecture: three hours per week. Laboratory: three hours per week.
Prereq: PHY222 or PHY224; MATH121
- PHY458 Electronic Devices for Scientists** 4 hrs
 Electronic devices used in electronic instruments: transistors, logic gates, and interface circuits. Interface techniques with applications to measurements. Lecture: three hours per week. Laboratory: three hours per week.
Prereq: PHY456
- PHY462 Kinetic Theory and Statistical Mechanics** 3 hrs
 An introduction to the kinetic theory of gases and statistical mechanics. For students concentrating in physics and those contemplating advanced study in related fields of science and engineering. Maxwell-Boltzmann distribution law, entropy and probability, transport phenomena, quantum statistics, Bose-Einstein and Fermi-Dirac statistics, the connection between statistical mechanics and thermodynamics, the equation of state, the elementary electron theory of metals and statistical methods in nuclear physics.
Prereq: PHY224; MATH223
- PHY471 Atomic and Nuclear Physics** 3 hrs
 Topics include basic nuclear structure, nuclear decay and radioactivity, nuclear reactions and particle physics.
Prereq: PHY370, MATH121

PHY475 Introduction to Quantum Mechanics 3 hrs
The fundamental ideas of the quantum theory; the dual nature of matter, wave equations and wave packets, observable and linear operators, the application of the Schrodinger and Heisenberg equations to elementary systems, Pauli's theory of electron spin.
Prereq: PHY370; MATH223

PHY477/478/479 Special Topics 1/2/3 hrs
This special topics course will be used to teach aspects of physics at an advanced level that would not regularly be offered.
Prereq: see department for prerequisites

PHY481 Mathematical Physics 3 hrs
Advanced mathematical topics for the physics student, with applications drawn from the field of physics. Vectors, matrices, tensors, partial differential equations, contour integration, calculus of variations, integral equations and transforms, eigenvalue functions, perturbation and group theory, special functions.
Prereq: MATH325; PHY330

PHY485 Fluid Dynamics 3 hrs
An introduction to the statics and dynamics of real and ideal fluids: properties of fluids, mathematical models, dimensional analysis, boundary layer flow, flow in pipes, compressible, incompressible, laminar and turbulent flow.
Prereq: PHY230 or PHY330; PHY360

PHY487 Cooperative Education in Physics 3 hrs
Four to six months of full-time employment at an industrial firm specially chosen for imparting a practical educational experience in physics. The program consists of two work experiences (PHY387 and PHY487) alternating with full-time attendance at the University. *Use toward a physics major or minor subject to department permission. Offered on a graded credit/no-credit basis.*
Prereq: PHY387; admittance by application only

PHY490/491 Special Problems (Honors Courses) 2 hrs each
An original experimental or theoretical problem in some area of physics investigated on an individual basis. Arrangements must be made with a staff member before the beginning of the semester.
Prereq: 20 hours of physics, a B average in physics and department permission

PHY495 Readings in Physics (Honors Course) 1 hr
Designed to give individual students a planned intensive reading program in some field of physics, the subject being chosen jointly by the student and the instructor. A part of this course will be the presentation of an hour-long talk in the chosen subject at an open meeting of the Department of Physics staff and students.
Prereq: 20 hours of physics and department permission

PHY497/498/499 Independent Study — Physics 1/2/3 hrs
An extensive study of a problem or group of problems under the direction of a department faculty member.
Prereq: approval by the faculty member and department permission

Political Science Courses (PLSC)

PLSC112 American Government 3 hrs
A study of the institutions and processes of American national government. Includes critical comparisons with major foreign governmental systems. Satisfies the political science requirement of all curricula. *Not open to those with credit in PLSC113.*

PLSC113 American Government Honors 3 hrs
An enhanced approach to the study of the institutions and processes of American national government. Includes critical comparisons with major foreign governmental systems. Satisfies the political science requirement of all curricula. *Not open to those with credit in PLSC112.*

PLSC177/178/179 Special Topics 1/2/3 hrs
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

PLSC202 State and Local Government 3 hrs
A study of the forms and functions of state and local governments with special emphasis on the government of Michigan. Especially valuable for teachers of social studies in senior and junior high schools.

PLSC210 Introduction to Political Analysis 3 hrs
A study of the conceptual and analytical foci of political science. Consideration is given to micro-level analysis of personality, attitudes, socialization and roles, and to macro-level analysis of group theory, decision-making, systems and communications.

PLSC211 Introduction to Comparative Government 3 hrs
Using a comparative focus, identifies important similarities and differences in the structure and the behavior of foreign political systems, principally, but not exclusively, European.

PLSC212 Introduction to International Politics 3 hrs
The fundamentals of great-power politics, the impact of efforts at international organization.

PLSC213 Introduction to Political Thought 3 hrs
Selections from major theorists are used to examine different approaches to perennial issues such as justice, liberty, equality, legitimacy and political order.

PLSC215 Civil Rights and Liberties in a Diverse US 3 hrs
We will survey how a wide variety of groups and individuals sought and currently seek legal protection and recognition through the Constitution, judicial interpretation and legislation. Exposure to these struggles will allow the student to experience a wide range of perspectives and critique how the legal system and society has dealt with clashes between diverse elements of the U.S.

PLSC216 Municipal Government 3 hrs
A study of forms and functions of municipal government.

PLSC221 Vietnam 3 hrs
This course will be a political-military look at the Vietnam War from its beginnings in the 1940s to its climax in 1975. A brief look at the parallels with other wars (the Persian Gulf, etc.) and the aftermath will be included. The course will include the PBS videotapes of *Vietnam: A History*.

PLSC222 War and Peace in the Nuclear Age 3 hrs
This course will be a study of the history of atomic weapons and the struggle to control them from 1945 to 1989. While concentrating most on the United States, it will include the Soviet Union, China and Western Europe. It will also examine the personalities involved and attempt to assess the impact they had on the struggle for arms control.

PLSC243/AAS243/WGST243 Black Women: Politics and Racism 3 hrs
An analysis of American politics as it relates to African American women. The course examines ways in which political issues affect Black women differently than African American men, white men and white women. Considerable attention is given to the definition of the political realm as opposed to the nonpolitical realm when discussing groups traditionally marginalized or excluded from political life.

PLSC270 Public Administration 3 hrs
This course examines the nature of public administration; problems connected therewith — direction and organization; recruitment, training, and promotion of personnel; maintenance of loyalty and efficiency.

PLSC277/278/279 Special Topics 1/2/3 hrs
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

PLSC297/298/299
Independent Study 1/2/3 hrs
Approved studies on an individual basis in areas in which the department does not offer formal courses.

PLSC301 American Legal System 3 hrs
A survey of various substantive components of the American system of law and its function in a democratic society. Special emphasis is placed upon problems of law enforcement, legal agencies and the processes involved in the administration of criminal justice.

PLSC305 Law and Policy in a Constitutional Democracy 3 hrs
This course explores the political and legal processes that shape the development and interpretation of major constitutional principles. We will discuss the sources and context for American law and examine how actors in the legal and political systems across all levels of government contribute to the laws that govern American society.

PLSC308 Political Violence and Revolution 3 hrs
A cross-national examination of political violence and revolution. Covers distinctions in types of political violence; examines ideological arguments on violence and revolution; examines case studies; and the impact of political, biological, psychological and sociological factors that have been associated with violent outbreaks cross-nationally.

PLSC310 Methods of Political Research 3 hrs
Continued exploration of political analysis techniques introduced in PLSC210. Attention is paid to data gathering and hypothesis testing, with an emphasis on applying these techniques to real-world political problems. Possible applications include doing applied research work for local municipalities or developing and implementing public opinion surveys.
Prereq: PLSC210

PLSC311 Politics of the Developing World 3 hrs
This course is designed to increase student awareness and understanding of political development within developing nations. The colonial legacy and current sociopolitical conditions are investigated in order to determine how these forces influence public policy-making.

PLSC312 Constitutional Law: Institutions and Process 3 hrs
This course focuses on the foundations, adoption and development of the US Constitution and its impact on the development and operation of American governmental institutions and economic liberty. The course introduces students to landmark cases that interpret and implement the American Constitutions.

PLSC313 Constitutional Law: Civil Rights and Liberties 3 hrs
This course focuses on the foundations, adoption and development of the US Constitution and its impact on the development of civil rights and lib-

erties in American law. Special emphasis is placed on the Bill of Rights, the 14th amendment and the right to privacy. The course introduces students to landmark cases that interpret and implement the American Constitution.

PLSC314 Civil Mock Trial and Legal Process 3 hrs
This course covers the basics of the actual trial process, the specifics of mock trial competition and rules, and introduces the fundamental elements of the legal research process. Legal methodology will be introduced and developed throughout the course. This course is intimately connected with the University's Mock Trial Team and is used as a vehicle to train and practice for competition. Students may take the course without participating on the University's team.

PLSC316 Criminal Mock Trial and Legal Process 3 hrs
This course covers the basics of the actual trial process, the specifics of mock trial competition and rules, and introduces the fundamental elements of the legal research process. Legal methodology will be introduced and developed throughout the course. This course is intimately connected with the University's Mock Trial Team and is used as a vehicle to train and practice for competition. Students may take the course without participating on the University's team.

PLSC327 American Foreign Policy Process 3 hrs
An introduction to the formulation and execution of American foreign policy, including consideration of the role of public opinion, the press, interest groups, Congress, the president, deterrence theory and decision-making in crisis situations.

PLSC330 Urban Politics 3 hrs
An examination of the urban political environment in the United States; structure, processes, power relationships, ethnic considerations, fiscal constraints and select, specific policy areas are considered.

PLSC332 Intergovernmental Relations and Federalism 3 hrs
A study of intergovernmental relations in the United States focusing on recent trends in the federal system. Examines significant developments and alternatives in shared governmental responsibilities, such as metropolitan reorganization, grant programs and regionalism.

PLSC334 Personnel Administration in Government 3 hrs
An examination of the basic personnel management practices of public bureaucracies. Topics include the development of the merit system and the civil service; public sector requirements for hiring, promotion, pay and benefits; discipline and grievance handling; the development and impact of public-sector collective bargaining.

PLSC335 Labor in American Politics 3 hrs
An examination of the role played by American labor as a political pressure group and as an agent of voter mobilization; American labor voting pat-

terns; the political impact of labor organization on the civil service; American role in international union affairs.

PLCS336 Foundations of the U.S. Nonprofit Sector 3 hrs
This course provides students with a grounding in the historical and philosophical foundations of the nonprofit sector in American Society. Using an interdisciplinary approach, this course will help students understand the evolution of the nonprofit sector, its capacities and limitations, as well as its distinctiveness.

PLSC341 International Law 3 hrs
An introduction to the principles and practices of public international law. The origin and development and the nature and sources of international law. Special emphasis will be placed upon the legal problems of peace and war and the future perspectives of international law in the relations of nations.

PLSC342 International Organizations 3 hrs
The structure and functions of international organizations. Collective security, disarmament, and the pacific settlement of disputes will be examined. Organizations emphasized will be the League of Nations, the United Nations, the European Common Market and OPEC.

PLSC343/344 Model United Nations 3 hrs
This course explores the structure and function of the United Nations in a changing global context. The General Assembly, Security Council and specialized UN agencies will be examined. Course includes as in-depth simulation of varying countries and their positions, aims and role within the United Nations. *This course can be taken more than once. The second enrollment is PLSC344.*

PLSC352 Politics of Government Budgeting 3 hrs
An analysis of the political significance and the procedures of governmental budgeting in the United States.

PLSC354 Government and Politics of Canada 3 hrs
Analysis of the Canadian political system in terms of historical background; political environment; constitutional structure; legislative, executive, and judicial processes; political parties and pressure groups; public opinion and voting behavior; political problems and trends.

PLSC357 Campaigns and Elections 3 hrs
An analysis of presidential and congressional elections. Topics include campaign strategies, role of the media and the impact of political action committees (PACS). Attention given to how individuals decide how to participate in the process, whether election results reflect the will of the people and to elections in other democracies.

PLSC358 Political Parties and Interest Groups 3 hrs
This course addresses a variety of issues related to the formation, maintenance and behavior of organized political groups. Primary focus is on

political parties and interest groups in the United States. However, cross-national comparisons will be included whenever possible.

PLSC359 Public Opinion and Political Learning 3 hrs

The nature, formation, measurement, and role of public opinion; the structure of control and the performance of the mass media; the nature of techniques, strategies and effects of propaganda.

PLSC361 Russian Politics in Transition 3 hrs

Government and politics in the former USSR: the rise and decline of communist power, party and government structures, elements of political culture and the nature of current system modification.

PLSC362/AAS362/WGST362 Black Women: Religion and Sexism 3 hrs

An introduction to the social and political role of Black women in African American religious institutions. Particular attention will be placed on how African American religion has limited the power of women. Additionally, the course will examine the historical evolution of the various major black denominations in America and their political and social roles in African American communities.

PLSC364 Legislative Process 3 hrs

A study of the agencies, procedures, and influences in the formation of public policy by Congress, state legislatures and administrative agencies.

PLSC365/WGST365 Women and Politics 3 hrs

A study of the role of women in American politics as voters, activists, and candidates, with consideration of how the political behavior of women relates to their economic, social and religious roles. Comparisons are made with select European and Asian political systems.

PLSC367 Latin American Politics 3 hrs

A study of the governmental structure and the nature of political activity in select Latin-American nations, with an emphasis on issues such as urbanization, military influence, students, labor and the development of political parties.

PLSC371 Government and Politics of the Middle East 3 hrs

The Middle East as a case study in the field of comparative politics, European colonial policies, nationalist movements and politics of independent states.

PLSC372 Government and Politics of Sub-Saharan Africa 3 hrs

Africa as a case study in the field of comparative politics, tribal political systems, European colonial policies, nationalist movements, multiracial conflict and politics of independent states in sub-Saharan Africa.

PLSC374 Asian Political Systems 3 hrs

A study of the politics and government of China, Japan, the mainland Southeast Asian states, Indonesia and India.

PLSC377/378/379 Special Topics 1/2/3 hrs

An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

PLSC380 American Presidency 3 hrs

A study of executive power, emphasizing the contemporary presidential role and how it has evolved, the politics of candidate choice, the personal qualities and political styles of recent presidents, and the array of formal and informal institutions constituting the modern presidency.

PLSC381 Public Policy Analysis 3 hrs

An examination of the political and administrative process of policy-making and the techniques of analyzing policy issues such as welfare, education, crime and economic development.

PLSC382 Politics and the 21st Century 3 hrs

A study of the political and public policy directions of the future. Consideration will be given to worldwide political developments and alternative political futures as affected by accelerating socio-political and technological change.

PLSC385 Judicial Process and Behavior 3 hrs

A study of the judicial process and behavior in the United States with emphasis on analysis of policy making by the courts. Federal judicial structures and functions, decision making procedures and political ideology, and judicial review.

PLSC386 U.S. Supreme Court Simulation 3 hrs

This semester long simulation affords students the opportunity to explore Supreme Court behavior. Each student will play the role of one justice and one litigation group. Justices will decide which cases they will consider, hear oral arguments and write decisions. Litigants will bring prospective cases to the Court, write legal briefs and engage in oral arguments.

Prereq: junior standing and department permission

PLSC387 Cooperative Education in Political Science 3 hrs

Four to six months of full-time employment in the public sector intended to provide practical experience in government, politics or administration. The program consists of two directed work experiences (PLSC387/487) alternating with full-time attendance at the University. *Applications of credit toward political science programs subject to department approval. Graded on a credit/no-credit basis.*

Prereq: junior standing; major in political science, public administration or public law and government; departmental recommendation required

PLSC410 Political Science in Literature and Film 3 hrs

A discussion and analysis of political theories, institutions, and practices utilizing a storehouse of insightful and articulate materials not normally

tapped in traditional political science courses: the works of essayists, aphorists, dramatists, pamphleteers, poets and novelists.

Prereq: political science major or minor; at least nine hours of political science course work completed; junior or senior standing or department permission

PLSC412 Comparative Legal Systems 3 hrs

Analysis of fundamental elements of the common law, the civil law, socialist laws and other legal traditions, and a comparison of the legal systems of select foreign countries.

PLSC418 20th-Century Political Theory 3 hrs

A comparative study of recent political theories and ideologies including democracy, socialism, communism and fascism. The analysis includes modern psychological and sociological theories as they affect political thought.

PLSC420 Democracy and Power 3 hrs

A study of the ideals and limitations of democracy. Examines values such as consent, equality, rights, citizenship, and the public interest and the limitations posed by authority, coercion, class conflict, distribution of wealth and the state.

PLSC422 American Political Theory 3 hrs

A concise survey of American political thought. The origins, growth and present state of American political ideologies will be examined.

PLSC431 Theories of Public Organization 3 hrs

An introduction to theories of organization as related to public bureaucracies in a democratic political context.

Prereq: PLSC270

PLSC434 Nonprofit Board Development 3 hrs

This course covers the best practices of nonprofit boards, board performance assessment, volunteer management and trends in board development. Board composition, recruiting, evaluation, leadership and board-staff relationships are discussed with an eye toward assembling and maintaining the most effective board possible.

PLSC435 Nonprofit Management and Leadership 3 hrs

This course explores major issues in the nonprofit sector including operations, board selection and development, strategic planning, marketing and governmental relations. The course emphasizes identification of critical management and leadership competencies through theory and practice, and the course has an Academic Service Learning component.

PLSC450 Managing Public Safety Agencies 3 hrs

Analysis of public-sector management elements, including planning, organizing, leading, controlling, and communicating, presented in the context of, and applied to, internal police/fire and corrections administration.

Prereq: PLSC431

PLSC451 Seminar in Public Safety Administration 3 hrs
A capstone seminar in the public safety administration concentration; integrates previous course work in law, management and politics by focusing on contemporary problems and issues in public safety operations, including attention to leadership, organizational conflict and resource allocation/utilization; utilizes a case approach.
Prereq: senior standing

PLSC456 Criminal Law I 3 hrs
A study of criminal law currently in use in the United States with emphasis upon the way its basic concepts function; its principal components and problems central to its impact upon the political system.

PLSC462 Russian Foreign Relations 3 hrs
An analytical and historical examination of Soviet foreign policies since 1917 — their sources, character, objectives and periodization.

PLSC467 Advanced International Relations 3 hrs
The course will explore, through case studies, the ways in which ideas, cultural differences and different political systems combine to produce the international politics of today. Special attention will be paid to the United States in this process as well as the role of economics and international organization. Limit: 25 students.
Prereq: PLSC212

PLSC470 Seminar in Political Science 3 hrs
Examination and utilization of research techniques in the preparation of a major seminar paper in political science, public administration or public law and government.

PLSC477/478/479 Special Topics 1/2/3 hrs
An examination of a topic in political science not normally covered in the curriculum, in which the distinctive concerns of political science are emphasized. Students may elect this course several times, provided different topics are studied, but it may be taken only twice for credit toward a major or minor in political science.

PLSC480 Field Seminar in Political Science/Public Administration 3 hrs
Designed to help students relate their field experience to some aspect of political science or public administration.
Prereq: department permission

PLSC486/488/489 Internship in Political Science/Public Administration 3/6/9 hrs
Extends classroom learning through practical experience with legislative, administrative, and other public-sector agencies at all levels of government. *Open to majors and minors in political science and public administration.*
Prereq: department permission

PLSC487 Cooperative Education in Political Science 3 hrs
Four to six months of full-time employment in the public sector intended to provide practical experi-

ence in government, politics or administration. The program consists of two directed work experiences (PLSC387/487) alternating with full-time attendance at the University. *Applications of credit toward political science programs subject to department approval. Graded on a credit/no-credit basis.*
Prereq: senior standing, PLSC387 or departmental recommendation required

PLSC497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer formal courses. *Normally restricted to political science majors.*
Prereq: senior standing and department permission

Production/Operations Management Courses (POM)

POM177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

POM277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

POM374 Introduction to Production/Operations Management 3 hrs
The major design, operation and control problems of operations management in manufacturing and service organizations. Topics include productivity management, product or service design, process management, quality management, supply chain management, capacity management, demand forecasting, operations scheduling, facilities location, lean operations, inventory management and just-in-time.
Prereq: DS265

POM377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

POM477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

POM497/498/499 Independent Study 1/2/3 hrs
Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student.
Prereq: department permission

Public Safety Courses (PS)

PS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PS285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

PS377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

PS380 Planning and Decision-Making for Public Safety 3 hrs
The study of planning and decision-making techniques as applied to public safety operations; includes attention to concepts, e.g., the process of change in organizations, as well as particular skills and techniques; e.g., PERT, decision trees.

PS381 Public Relations and Public Safety 3 hrs
An examination of the relationship between public safety agencies and the larger community, with particular emphasis on administrative and policy dimensions; the role of public safety agencies, the community's involvement in establishing that role, police-community relations programs, relationships with the media and professionalization and accreditation movements in public safety agencies are addressed.

PS387 Co-operative Education 3 hrs

PS412 Organizational Behavior for Public Safety Managers 3 hrs
This course will allow students to synthesize the structure and procedures of strategic management and project management. The course will integrate the ideas and information presented in other courses within the technology management concentration core. Students will demonstrate their ability to integrate information ascertained from previous classes within a capstone project.
Prereq: TM130

PS434 Hazardous Materials 3 hrs
An examination of hazardous material incidents from the perspective of the public safety officer/

manager charged with protecting people and property; identifying hazardous materials, assessing hazardous material accidents, planning and tactics for addressing hazardous material problems.

Prereq: CHEM117/118 or PHY221

**PS438 Personnel for
Public Safety Managers 3 hrs**

This course is concerned with issues of personnel management that are problematic or undergoing considerable change. It begins by establishing responsibility for police/fire/EMD personnel administration often a confusing matter to executives because of constraints from other governmental bodies, courts and union contracts.

Prereq: PLSC334 or department permission

**PS439 Budgeting for
Public Safety Managers 3 hrs**

To prepare students for proficiency with the police/fire/EMD budgetary perspective. Accounting terms and budgetary models will be presented including line item, zero-based and programmed. Microsoft Excel® will be utilized.

Prereq: PLSC352 or departmental permission

**PS442 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.

**PS453 Management Process
for Public Safety Managers 3 hrs**

Analysis of public safety management elements, including planning, organizing, leading, controlling and communicating, presented in the context of and applied to internal police/fire/emergency management administration. *Equivalent to PLSC450.*

Prereq: PS380 or department permission

PS477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

PS487 Co-operative Education 3 hrs

**PS497/498/499
Independent Study 1/2/3 hrs**

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Physical Science Courses (PSCI)

**PSCI270 Relativity, Atomic
and Nuclear Physics 3 hrs**

This course completes the introductory sequence in college-level, algebra-based physics. Topics include relativity, quantum physics, atomic structure and models, molecules, nuclear fusion and cosmology. Applications include lasers, holography, scanning tunneling microscopes and magnetic resonance imaging. Emphasis is placed on understanding and comprehension as well as the ability to solve relevant mathematical problems.

Prereq: PHY222 or PHY224

PSCI305 Energy and Society 3 hrs

This course is designed particularly for teachers in physical science as an elementary study of energy concepts and the various relationships between energy and society. The focus is on simple experimental projects, followed by class discussions. Most of the apparatus will be made from materials available in the home or at a variety store.

Prereq: PHY222 or PHY224

**PSCI309 Thermal Science
and Heat Transfer 3 hrs**

Basic course in the fundamental principles of thermodynamics and heat transfer. Topics include temperature scales, open and closed systems, properties of pure substances, change of state, P-V diagrams, specific heat, enthalpy, entropy, heat engine cycles, heat conduction, convection and radiation. Emphasis is placed on understanding and comprehension as well as the ability to solve relevant mathematical problems

Prereq: PHY222 or PHY224

**PSCI340 Milestones in Physics and
Astronomy for Teachers 3 hrs**

A course designed to give students an understanding of the contributions made by selected male and female scientists, from diverse racial and ethnic backgrounds, to the development of physics and astronomy, and the relationship of their ideas to the period in which scientists lived.

Prereq: PHY222 or PHY224 and ASTR205.

Psychology Courses (PSY)

PSY101 General Psychology 3 hrs

Principles, theories and methods evolving from the scientific analysis of behavior. This or PSY102 is a prerequisite to all other courses. Not open to those who have earned credit in PSY102.

PSY102 General Psychology 4 hrs

Principles, theories and methods evolving from the scientific analysis of behavior. Laboratory demonstrations and experiments illustrating selected concepts. Not open to those with credit in PSY101.

PSY177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: PSY101 or PSY102 and department permission

PSY203 Self-analysis and Control 3 hrs

Behavioral principles and techniques that can be applied to behavioral self-analysis and self-management. Student-initiated self-improvement projects encouraged.

Prereq: PSY101/102

**PSY205 Quantitative Methods
in Psychology 3 hrs**

Basic concepts and methods used in the analysis of psychological data. Methods of describing and drawing inferences from sets of data.

Prereq: PSY101/102 and one of: MATH104, MATH105, MATH110, MATH118, MATH120, MATH170, College-Level Math Placement (53 or higher), MATH placement Level 4 or SOC250 (with a grade "C" or better).

PSY207 Psychology of Adjustment 3 hrs

Systematic presentation of issues, concepts, principles and theories of human adjustment.

Prereq: PSY101/102

PSY225 Psychology of Religion 3 hrs

The application of psychological theory, principles and method to the study of religious behavior. The relationships between religion and personality, health/pathology, social behavior and intense emotional experience.

Prereq: PSY101/102

PSY240 Psychology of Sex 3 hrs

Survey of the psychological research concerned with human sexuality from a psychological point of view with an emphasis on research findings.

Prereq: PSY101/102

**PSY242/WGST242
Psychology of Women 3 hrs**

Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women.

Prereq: PSY101/102

PSY277/278/279 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: PSY101/102 and department permission

**PSY301 Introductory
Experimental Psychology 4 hrs**

Design, control and measurement techniques employed in the scientific investigation of behavior; e.g., motivation, emotion, perception and learning.

Prereq: PSY205

PSY304 Learning 3 hrs

Includes learning theories and empirical research as developed by Pavlov, Thorndike, Guthrie, Tolman, Hull, Skinner, Mowrer and others, plus select contemporary topics.

Prereq: PSY301

PSY309 Social Psychology 3 hrs
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 those with credit in SOCL308.
Prereq: PSY101/102

PSY321 Child Psychology 3 hrs
The development of human behavior from conception to adolescence. Analysis of developmental processes involved in cognition, socialization, emotion and personality, relying on research and theory; emphasis on developmental trends. Not open to students in early elementary education curriculum.
Prereq: PSY101/102

PSY322 Psychology of Adolescence 3 hrs
An opportunity to formulate, examine and understand a comprehensive, balanced picture of the physical, mental, emotional, social, and ideological developments and adjustments during adolescence.
Prereq: PSY101/102

PSY323 Psychology of Human Aging 3 hrs
Aging individuals in the context of their life span; the special problems of the aged in modern American society. Intellectual functioning, socialization and personality, environmental effects, and the problems of isolation and institutionalization.
Prereq: PSY101 or PSY102; junior or senior standing or second bachelor's only

PSY340 Psychological Perspectives on Prejudice and Discrimination 3 hrs
The psychological processes underlying the phenomena of prejudice and discrimination. A review of materials on personality and development relevant to the practice of discrimination and to the experience of prejudice on the part of both minority and majority group individuals.
Prereq: PSY101/102 and sophomore standing

PSY350 Environmental Psychology 3 hrs
The psychological effects of various environmental settings and configurations on human behavior. Select qualities of architectural spaces, urban environments and natural settings.
Prereq: PSY101/102

PSY351 Industrial Psychology 3 hrs
Applications of psychological methods and principles to industrial problems.
Prereq: PSY101/102 and junior or senior standing

PSY356 Motivation and Emotion 3 hrs
Review and analysis of theory and research in the areas of motivation and emotion.
Prereq: PSY301

PSY357 Sensation and Perception 3 hrs
Analysis of the psychological literature relating to sensory and perceptual experience.
Prereq: PSY301

PSY358 Cognitive Processes 3 hrs
A review of the theoretical and empirical developments concerned with cognitive processes, such as concept formation, memory and retrieval from memory, language acquisition, thought, problem solving, imagination, and creativity.
Prereq: PSY101/102

PSY360 Abnormal Psychology 3 hrs
Modern theories of the origin of mental disorders and personality disturbances, nature and mechanism of the various forms of abnormal behavior, prevention and treatment, social significance of aberrations.
Prereq: PSY101/102

PSY361 Psychotherapy 3 hrs
Survey of therapeutic systems and research on psychotherapy.
Prereq: PSY360

PSY362 The Psychology of Stress and Relaxation 3 hrs
An introduction to the theoretical aspects of stress, stress reactions, stress assessment, and stress management and prevention.
Prereq: PSY101/102

PSY365 Behavior Modification 3 hrs
For students in psychology, special education, social work, nursing and related fields. Techniques for coping with problem behaviors. Training in practical observation and recording procedures, program evaluation designs, and behavior change principles.
Prereq: PSY101/102

PSY366 Health Psychology/ Behavioral Medicine 3 hrs
The application of behavioral-science theory, principles, and techniques to understanding of health and illness, and to prevention, diagnosis, treatment, rehabilitation and health care delivery.
Prereq: PSY101/102

PSY377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: PSY101/102 and department permission

PSY387 Cooperative Education in Psychology 3 hrs
Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The program consists of two work experiences (PSY387/487) alternating with full-time attendance at the University.
Prereq: two 300-level psychology courses and department permission

PSY388 Psychology in the Field Setting 2 hrs
A practical work experience in a supervised mental health setting that integrates scholarly and practical aspects of psychology. Approximately three hours

of fieldwork each week and completion of a journal of goals and experiences.
Prereq: PSY101/102, concurrent enrollment in a three-hour psychology class and/or department permission

PSY397/398/399 Individual Reading in Psychology 1/2/3 hrs
Supervised reading on psychological problems.
Prereq: PSY101/102 and prior department approval of a planned reading program

PSY445 Consumer Psychology 2 hrs
A survey of psychological principles, theories and methodology relating to consumer behavior.
Prereq: PSY101/102

PSY448 Seminar in Psychology 2 hrs
A synthesis of various approaches to the study of psychology. Development, presentation, and critical appraisal of individual student projects. *Open to seniors with a psychology major or minor.*

PSY451 Dynamics of Personality 3 hrs
Physiological, psychological and cultural determinants of human personality; analysis of select theories of human personality.
Prereq: PSY101/102; junior or senior standing or second bachelor's only

PSY453 History and Systems of Psychology 3 hrs
Historical development of modern psychological theories; contemporary systems, including functionalism, behaviorism, phenomenology, psychoanalysis and dynamic psychologies.
Prereq: PSY101/102 and PSY301; junior or senior standing or second bachelor's only

PSY457 Physiological Psychology 3 hrs
Analysis of the relationships among brain functions, physiological processes and behavior. Open to junior and senior science majors with department permission.
Prereq: PSY301; recommended: BIOL105 or ZOOL140

PSY458 Comparative Animal Behavior 3 hrs
Modern solutions to the innate versus learned behavior controversy; species differences with respect to behavior and behavioral capacities.
Prereq: PSY301

PSY460 Psychology of Film 3 hrs
The psychology of film and audience. Viewer psychology, presentation of psychology, family, violence and sexuality in film.
Prereq: junior standing and/or two courses in psychology

PSY477/478/479 Special Topics 1/2/3 hrs
An examination of topics in psychology not covered in other department offerings. May be elected more than once, provided different topics are studied.
Prereq: PSY101/102 and department permission

PSY487 Cooperative Education in Psychology 3 hrs
 Four months of full-time employment at an individual employer chosen to provide practical experience in the student's major field. The program consists of two work experiences (PSY387/487) alternating with full-time attendance at the University.
Prereq: PSY387 and department permission

PSY497/498/499 Individual Research in Psychology 1/2/3 hrs
 Supervised investigation of psychological problems.
Prereq: department permission

Quality Technology Courses (QUAL)

QUAL177/178/179 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

QUAL277/278/279 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

QUAL320 Industrial Quality Control 3 hrs
 An introduction to quality control systems and methods utilized in industry. Topics include quality policy and organization, data collection, and reporting, control charts, process and gauge capability, sampling plans, reliability, cost of quality, product liability and problem analysis.
Prereq: MATH105

QUAL377/378/379 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

QUAL387 Cooperative Education in Quality Technology 3 hrs
 Industrial technology majors will be placed on a job that relates to their primary area of study, for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-credit basis. Credit applicable to the major in industrial technology or industrial teacher education only.*
Prereq: department permission

QUAL477/478/479 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

QUAL487 Cooperative Education in Quality Technology 3 hrs
 The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to their primary area of study for one semester. Regular employee benefits may be received. *Graded on a credit/no-credit basis.*
Prereq: QUAL387 and department permission

QUAL494/495/496 Industry-Based Special Topics 1/2/3 hrs
 Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Offered on a credit/no-credit basis.*

QUAL497/498/499 Independent Study 1/2/3 hrs
 Available to selected students who have demonstrated ability to profit from a directed-study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser and chair.
Prereq: department permission

Reading Courses (RDNG)

RDNG177/178/179 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RDNG210 Issues and Trends in Literacy Education 2 hrs
 This course provides an overview of literacy education. Drawing from a variety of perspectives, including constructivist, sociolinguistic and psycholinguistic, students will survey the major trends and issues in literacy education and the research which supports them.

RDNG220 Instructional Uses of Trade Books 3 hrs
 In this course, students will acquire a knowledge of trade books and their uses in language arts instruction and in instruction across the curriculum. Students will develop strategies and methods for using trade books so that children discover the value and satisfaction of reading.

RDNG230 Word Study in the Reading Program 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 the elementary grades.

RDNG240 Reading and Writing Connections in the Elementary Grades 3 hrs
 This course provides preservice teachers an opportunity to explore research on the relationship

between the reading and writing processes, to experience writers' workshop, to determine ways to promote growth in students' written language across the content areas and to determine management and evaluation procedures within the reading/writing classroom.

RDNG277/278/279 Special Topics 1/2/3 hrs
 An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RDNG300 Early Literacy 3 hrs
 A concentration on the developmental aspects of literacy learning from birth to eight years old. Involves theoretical and research knowledge pertinent to child growth and development.
Prereq: EDPS322 or EDPS325 and admission to the teacher education program

RDNG310 Literacy Across the Curriculum in the Intermediate Grades 3 hrs
 This course focuses on the developmental aspects of literacy processes in the intermediate grades. Emphasis will be placed on theory and research and their application to literacy instruction across all content areas. Field based experiences are included in the corequisite FETE401. Required of students seeking elementary certification.
Prereq: CURR304 and RDNG300

RDNG311 Teaching Reading in the Secondary School 3 hrs
 The developmental sequence for reading skills at the junior and senior high school levels and methods for teaching the sequence, including teaching programs for all students. Providing reading instruction within the context of the various areas. Required for all students who seek certification to teach in secondary schools.
Prereq: CURR305, PHED317, BMMT200, MUSC330, MUSC332 or TEDU350; admission to the teacher education program

RDNG330 Reading and the Culturally and Linguistically Diverse Learner 3 hrs
 Exploring research on second language reading and language instruction, students will develop strategies for working with elementary students from diverse cultural and linguistic backgrounds. Students will engage in action research to design instructional methods and tools which will foster reading and language learning for second language learners.
Prereq: RDNG230

RDNG340 Literacy Assessment in the Elementary Schools 3 hrs
 A course in the types of informal literacy assessments appropriate for elementary school children. Students will examine a variety of literacy assessments techniques for primary and upper elementary grades including reading level assessment, motivational, spelling and writing scales. Portfolio development and parent conferences will also be examined.
Prereq: RDNG300; EDPS340 or EDPS341

RDNG350 Integrated Language Arts Instruction 3 hrs
This course focuses on the interrelationship of speaking, listening, reading, writing, viewing, and visually representing within language arts instruction. The purpose is to acquaint preservice teachers with recent research and practice relevant to language arts instruction in the elementary classroom.
Prereq: RDNG300

RDNG377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RDNG400 Program Development for Struggling Readers 3 hrs
A course in the development of an intervention program to meet the needs of struggling readers. Students will develop and implement an intervention program for a child in the local community and report the results of this program to the parents and the school.
Prereq: RDNG340

RDNG477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RDNG497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Recreation Courses (RECR)

RECR100 Introduction to Recreation and Leisure 3 hrs
A basic overview of the fields of recreation and leisure service delivery for the major student. Emphasizes the broad aspects of recreation and leisure as they relate to the delivery of human services. Includes history, philosophy, trends and job opportunities. Lecture, discussion, film and speakers from the field.

RECR110/IHHS110 Rediscovering Your Creativity 1hr
This course is designed to develop creative problem solving and idea generating abilities through a review of applied research. In addition, a series of in-class exercises will be facilitated and designed to enhanced latent creative abilities.

RECR120 Business Golf 1 hr
This course does not teach the game itself, it focuses on how to build relationships with clients, proper etiquette on and off the course, the selection of equipment, protocol of behavior at country clubs and an overview of the process of planning and implementing a personal business golf strategy to further your career.

RECR165 Leisure Lifestyles 3 hrs
An introduction to leisure lifestyles as related to oneself and how leisure behavior relates to an individual's work, education, economy, ethnic beliefs and values. The course involves individual leisure awareness, choices, goals and strategies to assist in creating a quality and fulfilling life. Lecture, discussion, evaluation techniques and self-exploration. Helpful for majors in any discipline.

RECR177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RECR260 Recreation Leadership 3 hrs
Methods and techniques of group and individual leadership skills at three levels: direct face-to-face leadership, supervision and management. An overview of conceptual and theoretical components of the leadership process; practical application of various leadership methods and procedures in a cross section of leisure service settings. Lectures, discussion and experiential learning.

RECR271 Park Maintenance 3 hrs
Principles, practices, and techniques of maintenance and management of outdoor recreation areas and facilities. Resource maintenance and management; maintenance and depreciation of equipment; personnel practices in maintenance; safety practices, legal issues; and public relations. Lecture, speakers, park visitations and projects.
Prereq: RECR100 or department permission

RECR277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RECR280 Camping 2 hrs
History of organized camping; camping on federal and state recreation areas; information sources for camping; planning and preparation (equipment, clothing, meals, camp schedules and camp programs). Skills areas for camping: map and compass; ropes and knot-tying; campfire construction; camp tool use and maintenance; and tents. Safety reviewed for meal preparation, use of tools, and toxic plants and animals. Lecture, demonstrations and student participation in a weekend camping trip.

RECR290 Practical Research in Recreation 3 hrs
The purpose of this discussion/lecture course is to understand and apply basic research design, evaluation procedures and interpretation, and computer

and statistical techniques to assessment, planning and evaluation processes in leisure services.
Prereq: MATH105

RECR360 Recreation Program Planning 3 hrs
Learning to plan and deliver leisure experiences to an individual or group of individuals. Use of systematic way of identifying, developing, implementing, evaluation and revising programs to meet people's needs and interests. Plan individual programs. Lecture, speakers, projects.
Prereq: RECR260

RECR361 Special Events in Recreation 3 hrs
This upper-level course is designed to inform the student of current trends in special events and management. The course will combine lecture materials with small group techniques to develop and present a special-event idea to a panel of professional recreators.
Prereq: RECR100 and RECR260

RECR370 Leisure Facility Design and Management 3 hrs
A required course for all recreation majors and a beneficial course for all students in human service studies who will coordinate and develop public facilities. The course will cover vital information needed to plan, develop, construct and manage various types of leisure facilities. The course will utilize lecture, discussion, guest speakers and field trips to enhance the students' understanding of the topic.

RECR377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

RECR390 Outdoor Recreation 3 hrs
History of outdoor recreation and outdoor recreation management. A systems view of outdoor recreation resources; federal, state, and local agencies that provide outdoor recreation opportunities; their history and management philosophies and problems. Tools utilized by managers of outdoor recreation resources to provide opportunities for recreation. Lecture, speakers, projects.

RECR450 Park Planning and Design 3 hrs
Overview of history of park planning and design; scope of park planning, types of park plans; planning processes, systems and site-level planning; work program design; use of consultants; sources for planning; recreation standards; analysis of supply and demand for recreation and open space; site analysis; use area relationships; and site plan development and interpretation. Lab: maps and aerial photos, drawing and perspective; computer drawing; site analysis and design. Lecture, projects, field trips.

RECR460 Park and Recreation Administration 3 hrs
Influence of organizational thought as related to park and recreation agencies. Organizational structures of park and recreation agencies, budget-

ing, management by objectives, public and private financial sources, volunteerism, marketing of park and recreation resources, pricing services and products, and administrative responsibility and ethics. Lectures, speakers, projects.

Prereq: RECR100

RECR465 Park and Recreation Management 3 hrs

Use of systems approach to agency management; nature of a problem and problem-solving model; use of public input in management decision-making; role of research in managing recreation services; personnel management practices; and basic legal issues. Lecture, speakers, projects.

Prereq: RECR100

RECR471 Contemporary Issues in Recreation 3 hrs

This course is to familiarize the recreation and park management student with vital issues that practicing professionals are facing on a daily basis. The class will utilize a seminar format with each session focusing on a single issue. A wide range of leading authorities in the field will present from their perspective followed by an in-depth discussion session on how this topic affects the future professional.

Prereq: RECR100, RECR260 and RECR460

RECR477/478/479 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

RECR481 Adapted Aquatics 2 hrs

Aquatic instructional techniques in working with special populations including physically disabled, developmentally disabled, emotionally impaired and the aged. Lectures, films, swimming skills, adaptations of swimming skills and 20 hours of fieldwork.

RECR489 Recreation Practicum 8 hrs

A full-time, 15-week, 600-hour experience in a leisure services setting under a qualified recreation/leisure specialist and University supervisor.

Prereq: completion of 90 percent of all academic courses including RECR100, THRC200, THRC250, RECR260, RECR360, RECR460 and RECR465; completion of 250 hours of fieldwork; overall grade point average of 2.5 and GPA of 2.75 in recreation and park management required and elective courses

RECR497/498/499 Directed Study 1/2/3 hrs

An opportunity for directed study in areas not covered in other course offerings, or greater depth of study in areas of continued interest for the student. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above and who have completed the appropriate background courses.

Study Abroad Courses (SABR)

SABR177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

SABR277/278/279 Special Topics 1/2/3 hrs

A single topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied.

SABR377/378/379 Special Topics 1/2/3 hrs

One topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied.

SABR477/478/479 Special Topics 1/2/3 hrs

A single topic is covered each semester, selected as interest and/or problems change. Students may elect this course several times, provided different topics are studied.

Supply Chain Management Courses (SCM)

SCM377/378/379 Special Topics 1/2/3 hrs

One topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in supply chain management.

SCM380 Introduction to Supply Chain Management 3 hrs

This course introduces students to business processes of Supply Chain Management. It examines the managerial issues within firms and value added activities that occur when firms purchase, produce, source, and distribute goods and services to satisfy customer needs. The role of IT in SCM will be discussed.

Prereq: MKTG360 and POM374

SCM385 Logistics 3 hrs

Students will be introduced to the different components of logistics (transportation, warehousing, material handling, order-processing, inventory, packaging, customer service) and its applications to different industries including not-for-profit organizations. Operational issues, fundamental management techniques, and technological issues will be discussed.

Prereq: MKTG360

SCM386 Purchasing and Supply Management 3 hrs

This course focuses on implementation of the entire purchasing process from evaluating purchasing

need to effective supplier management. Topics will be presented in three major areas: tactical, strategic, and electronic. Particular emphasis is placed on supplier selection/evaluation, in/outsourcing decisions, supplier relationships, and ethical issues in purchasing and supply management.

Prereq: junior standing

SCM420 Operations Planning and Scheduling in Supply Chain 3 hrs

This course integrates operations planning and scheduling activities for manufacturing and service operations in a supply chain management system. Topics include: ERP, demand management, production planning, master production scheduling, resource requirements planning, capacity management, inventory management and detailed scheduling. Hands on computer exercises using MS Excel and SAP/R3 are included.

Prereq: POM374 and junior standing

SCM464 Advanced Logistics 3 hrs

This course provides and in-depth understanding of the strategic and operational challenges involved in developing and implementing a firm's logistic strategy. Particular emphasis will be placed on logistics as a value-added process in the areas of warehousing, transportation, and global logistics decisions.

Prereq: SCM385 and junior standing

SCM465 Global Supply Chain Management 3 hrs

This course integrates the concepts and tools of SCM approach with emphasis on issues in a global supply chain. Topics include indentifying/managing risks, global supplier selection/evaluation/management, distribution and logistics management, international contracts/documents, and development/maintenance of international buyer-supplier relationships/alliances and global practices.

Prereq: SCM380 and IB210 and junior standing

SCM477/478/479 Special Topics 1/2/3 hrs

A single topic is covered each semester, selected as interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in supply chain management.

SCM497/498/499 Independent Study 1/2/3 hrs

Intensive study of a problem or theory supervised by a faculty member in social foundations of education.

Prereq: department permission and consent of instructor

School of Engineering Technology Courses (SET)

SET102 Global Product Design and Development 3 hrs

This course introduces students to three interlocking aspects of global product development: first, issues related to design and electronic trans-

mission of design documents around the world, second, issues related to locations for prototypes, small batch production and mass production, and third, issues related to supply chain organization including cooperation and/or conflict between governments, agencies and financial institutions.

SET177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

SET277/278/279 Special Topics 1/2/3 hrs
A single topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.

SET350 Applied Technical Writing 3 hrs
A writing course that focuses on writing about scientific and technical topics. Students will develop their skills in presenting technical content accurately and efficiently.

SET377/378/379 Special Topics 1/2/3 hrs
One topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.

SET477/478/479 Special Topics 1/2/3 hrs
A single topic is covered each semester, selected as interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.

SET497/498/499 Independent Study 1/2/3 hrs
Intensive study of a problem or theory supervised by a faculty member in social foundations of education.
Prereq: department permission and consent of instructor

Sociology Courses (SOCL)

SOCL105 Introductory Sociology 3 hrs
Basic sociological concepts are used to analyze social systems, socialization, social inequality, deviance and conformity, and the process of social change with focus on family, educational, religious, governmental and economic institutions.

SOCL177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: SOCL105

SOCL202 Social Problems 3 hrs
An analysis of problems arising in contemporary American society, such as child rearing, relations between the sexes, crime and delinquency, relations between racial and cultural subgroups, and personality disorders.
Prereq: SOCL105

SOCL204 Marriage and Family 3 hrs
The position and significance of the family in our changing society. Courtship, mate selection and problems of marital adjustment from sociological and social-psychological perspectives.
Prereq: SOCL105

SOCL208/ANTH208/WGST208 Minority Women in the United States 3 hrs
This course surveys the situation of and the conditions that affect the lives of four groups of minority women in the United States who are from diverse cross-cultural backgrounds: Black, Asian-American, Latin-American and Native American. It focuses on the contemporary situation of these women and compares the four groups in terms of demographics, economic and occupational situations, education, family lives and relationship to the feminist movement.
Prereq: SOCL105

SOCL214/ANTH214 U.S. Racial and Cultural Minorities 3 hrs
An introduction to the study of U.S. diversity with particular reference to the black and Hispanic, and European and Asian immigrants in the United States; racial myths, doctrines and movements; conflict and accommodation of majority and minority people; and proposed solutions of ethnic problems.

SOCL230 Introduction to Applied Sociology 3 hrs
This course will be geared towards those students interested in applying the core elements of sociology to business, government and social service organizations. The tools of sociology, including theory and methods, will actively inform the study of various issues in a range of professional settings.
Prereq: SOCL105

SOCL250 Quantitative Applications in Sociology 3 hrs
Introduction to the evaluation and interpretation of numerical and categorical data using descriptive and inferential statistical techniques.

SOCL277/278/279 Special Topics 1/2/3 hrs
A single topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.
Prereq: SOCL105

SOCL303 Sociology of Childhood and Youth 3 hrs
Childhood and youth as elements of social organization. The relationship between social structure and the emergent personality of the individual; normality and deviance as social processes.
Prereq: SOCL105

SOCL304 Methods in Sociological Research 3 hrs
Methods used in sociological research and their various applications. Participation in conducting a survey.
Prereq: SOCL105

SOCL306 The Urban Community 3 hrs
Ecological and social organization of urban life. The metropolitan trend in the United States and the social problems created by it.
Prereq: SOCL105

SOCL307 Sociology of the Workplace 3 hrs
This course addresses the dynamics of contemporary workplace in manufacturing, service industries and government agencies; how interactions among participants in the workplace are shaped by the organization and its technologies; and how the dynamics of the workplace intersect with larger social and economic forces.
Prereq: SOCL105

SOCL308 Social Psychology 3 hrs
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. *Credit cannot be earned in both SOCL308 and PSY309.*
Prereq: SOCL105

SOCL309 Culture and Personality 3 hrs
An analysis of the manner in which group and cultural factors influence the growth and change of personality. The impact of personality types on group life. *Not open to those with credit in ANTH309.*
Prereq: SOCL105 or ANTH135

SOCL310 Social Stratification 3 hrs
This course focuses on the social factors of inequality, the process of status attainment, and social mobility in contemporary societies. These aspects of stratification are examined on both the national and global levels. Course materials address the differential distribution of and access to resources including issues of race, class and gender.
Prereq: SOCL105

SOCL311 Social Gerontology 3 hrs
Demographic and sociocultural factors in aging, the aging individual as a person, older people as groups and aggregates within the culture and structure of a changing society, the manner in which society attempts to meet the needs of aging people and the aged.
Prereq: SOCL105

SOCL312 Medical Sociology 3 hrs
Social behavior and social organization as factors in disease distribution. The sociological analysis of medical care, organization and practitioners.
Prereq: SOCL105

SOCL320 Sociology of Religion 3 hrs
A sociological analysis of religious organizations and the institution of religion including the interaction

between religious organizations and other institutions and associations, and the role of religion in social movements and social change.
Prereq: SOCL105

SOCL321/CRM321 Cooperation and Conflict in Society 3 hrs

The principles of cooperation, cooperation in our competitive-individualistic society, cooperative skills and forms of mutual aid are examined. Students learn cooperation through doing, as well as reading and writing, including a variety of group projects, exercises and discussion.
Prereq: SOCL105

SOCL333/CRM333 Violence and Society 3 hrs

An introduction to and survey of the multidisciplinary study of violence and society. Specifically examined are mass institutions of media, culture and identity formation.
Prereq: SOCL105

SOCL334 Population 3 hrs

Population size and composition, and their impact on society; determinants and consequences of natality, mortality and migration; the relationship between human numbers and resources and its politico-economic implications; population theories and policies of population control.
Prereq: SOCL105

SOCL336 Social and Cultural Change 3 hrs

A survey of the theories and problems of change as they affect at the global, national and subcultural levels. *Not open to those with credit in ANTH336.*
Prereq: SOCL105 or ANTH135

SOCL337/CRM337 Deviance and Society 3 hrs

An introduction to the scientific study of deviance, society's reaction to deviance and the social strategies for managing deviance.
Prereq: SOCL105

SOCL338/WGST338/CRM338 Women, Crime and Justice 3 hrs

This course will offer a critical analysis of gender and criminal justice as it relates to women as victims, offenders and agents of the criminal justice system. Additionally, the social conditions of criminality, intervention strategies, as well as, social action and criminal justice policy reform will be examined.

SOCL339 Sociology of Love 3 hrs

A sociological examination of love, emphasizing typologies, scientific research and cross-cultural comparisons. Special attention is given to the analysis of love in terms of feelings, thoughts, behaviors and attitudes.
Prereq: SOCL105

SOCL341 Quantitative Methods of Social Research I 3 hrs

Examination and review of research methods in behavioral sciences and the nature of empirical data, organization of univariate and bivariate data. *Not open to those with credit in SOCL250 or SOCL304. Must be followed by SOCL342.*
Prereq: SOCL105

SOCL342 Quantitative Methods of Social Research II 3 hrs

Further review and applications of research methods and introduction to statistical inference. *Not open to those with credit in SOCL250 or SOCL304.*
Prereq: SOCL341

SOCL344/WGST344 Sociology of Gender 3 hrs

Analysis of past, present and future sex roles; the changing roles of women and men, and the conflicts and consequences of these changes on marriage and family systems in the United States.
Prereq: SOCL105

SOCL345 Qualitative Methods 3 hrs

A review and examination of social-science research methods that entail fieldwork, participant observation, naturalistic experimentation and the analysis of cultural data. *Not open to those with credit in ANTH345.*
Prereq: SOCL105 or ANTH135 or department permission

SOCL352 Sociology of Education 3 hrs

Using the traditional lecture method combined with small-group interactive exercises, this course will systematically examine the institution of American public education by focusing on the interplay between education, its social history, gender and race, environment, social control, ideology, the school in a global economy, and social structure in the formation and procession of schooling through a variety of theoretical scopes.
Prereq: SOCL105

SOCL375 Political Sociology 3 hrs

The structure of political systems analyzed from an individual and social system perspective.
Prereq: SOCL105

SOCL377/378/379 Special Topics 1/2/3 hrs

One topic is covered each semester, selected as the interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.
Prereq: SOCL105

SOCL387 Cooperative Education in Sociology 3 hrs

Practical experience in industrial, business, or government settings to provide job skills. *Offered on a credit/no-credit basis.*
Prereq: department permission

SOCL402 Group Dynamics 3 hrs

Structure and interaction processes of small groups. Cohesiveness, group standards, conformity and deviance, leadership, group emotion, communication, group roles and sociometrics.
Prereq: SOCL105

SOCL403 Modern Sociological Theory 3 hrs

The rise and development of sociological thought from Comte to the present. The works of various European and American schools analyzed and critically appraised in terms of their value in empirical research.
Prereq: SOCL105

SOCL405 Senior Seminar in Sociology 3 hrs

The purpose of this course is to integrate sociological knowledge, theory and methods, and relate them to applications within the student's discipline and profession.
Prereq: SOCL105; senior standing

SOCL412/CRM412 Law and Society 3 hrs

Law as a social and cultural product; the interrelationships between law and social institutions. *Not open to those with credit in CRM412.*
Prereq: SOCL105

SOCL440 Sociology of Technology 3 hrs

A study of social factors involved in the creation, innovation, distribution, evaluation and social effects of technology.
Prereq: SOCL105

SOCL448 Collective Behavior 3 hrs

Spontaneous, transitory and volatile collective behavior contrasted with the relatively stable, institutionalized patterns of interaction. Analysis of rumor transmission, crowd behavior, mass behavior, and the emergence of organized social movements.
Prereq: SOCL105

SOCL450 The Family 3 hrs

The family as a basic social institution. Various types of family systems throughout the world with special emphasis on the American family.
Prereq: SOCL105

SOCL451 Sociology of Work and Occupations 3 hrs

Social aspects of work. Recruitment, career patterns, professionalization, sociology of the workplace and labor force.
Prereq: SOCL105

SOCL462 Complex Organizations 3 hrs

An examination of several types of large organizations, with emphasis on the nature of bureaucratic organizations. Theoretical and empirical studies of organizational growth, recruitment, control and relations between organizations.
Prereq: SOCL105

SOCL465 Sociology of Revolution 3 hrs

This course surveys major theoretical perspectives that have been used by social scientists to interpret and explain revolutions. With the aid of the best available theories, the course will examine a series of historical instances, ranging from the French Revolution of the 18th century, through the Russian and Chinese Revolutions, to recent revolutions in post-colonial or dependent countries, such as the Iranian Revolution.
Prereq: SOCL105

SOCL477/478/479 Special Topics 1/2/3 hrs

A single topic is covered each semester, selected as interest and/or problems change. Students may elect this course several times, provided different topics are studied, but only twice for credit toward a major or minor in sociology.
Prereq: SOCL105

SOCL487 Cooperative Education in Sociology 3 hrs
Practical experience in industrial, business, or government settings to provide job skills. *Offered on a credit/no-credit basis.*
Prereq: SOCL387/CRM387

SOCL489 Internship in Sociology 3 hrs
Students are assigned a minimum of eight hours per week to a governmental or private organization dealing with a sociological problem, issue, service or concern. The placement, in agreement with the field instructor, provides supervised learning experiences appropriate to the objectives of the undergraduate program. A weekly seminar relates field experience to theory.
Prereq: SOCL105, senior standing in sociology and department permission

SOCL497/498/499 Independent Study 1/2/3 hrs
Directed reading and research on problems within the field of sociology.
Prereq: department permission

Social Foundations Courses (SOFD)

SOFD177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SOFD277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SOFD328 Schools in a Multicultural Society 3 hrs
A study of the interactive relationship between schools and society, and the development of a culturally responsible pedagogy. Special emphasis on educational equity and the theoretical foundations of multicultural education.
Prereq: EDPS322 or EDPS325; admission to the teacher education program

SOFD377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SOFD477/478/479 Special Topics 1/2/3 hrs
A study of select issues in social foundations of education. Topics may vary from term to term. Students may elect this course several times, provided different topics are covered.
Prereq: department permission

SOFD497/498/499 Independent Study 1/2/3 hrs
Intensive study of a problem or theory supervised by a faculty member in social foundations of education.
Prereq: department permission and consent of instructor

Special Education Courses (SPGN)

SPGN177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPGN251 Education of Students with Exceptionalities 3 hrs
This introductory survey course provides a framework for understanding how legislative and social changes in the U.S. have modified the ways in which diversity issues related to student learning characteristics have impacted equity in education. This course includes the historical, philosophical and organizational factors leading to the enactment of federal and state laws, rules, and regulations governing special education. Characteristics, educational considerations and implications of all areas of exceptionality are addressed.

SPGN271 Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs 2 hrs
Speech and language development in children and adolescents from birth through young adulthood. Unique patterns of speech and language development in children and adolescents with special learning needs are emphasized. Lecture and observation. *Required of all special education majors except speech and language impairment and hearing impaired, who must take SPSI337 Language Acquisition.*

SPGN277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPGN323 Writing for Professionals in Special Education 3 hrs
Intermediate writing course to prepare students for professional writing in the field of special education.
Prereq: ENGL121, junior standing and admission to the special education program

SPGN377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPGN390 Measurement and Diagnosis in Special Education 3 hrs
This course is required for all students majoring in special education. Students will learn about a wide variety of standardized and criterion-referenced tests and about their role in assessing intellectual capacity, academic achievement, socioemotional skills, adaptive behavior, and auditory and visual limitations of students with handicaps. The course will be taught in a lecture format. Students will look at and become familiar with a wide variety of commonly used tests. Cultural reactions, test bias, and limitations will be explored.
Prereq: SPGN251; admission to the teacher education program

SPGN395 Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction 3 hrs
Knowledge of the reciprocal influences of children and adolescents with disabilities, their families, and community institutions: legal, medical, social, educational, and welfare components of social institutions. Students develop skills required to identify problem areas for the children and adolescents with disabilities, and their families, when interfacing with community institutions and to plan and implement effective intervention for positive growth.
Prereq: SPGN251; admission to the teacher education program

SPGN461 Classroom Management and Intervention Strategies for Students with Disabilities 3 hrs
Strategies, approaches and techniques for effective classroom management for students with disabilities. Behavioral theories provide the foundation for the construction of effective strategies and techniques applicable in inclusive, resource and self-contained classroom settings. Roles and responsibilities of students, teachers, families and other school personnel are discussed.
Prereq: SPGN251; admission to the teacher education program

SPGN471 Curriculum and Transitions for Secondary Special Education 3 hrs
The role of the special educator relative to curriculum and transition planning at the secondary level is explored. Topics address all disability areas and settings. An approved field work practicum is required.
Prereq: SPGN251 or SPGN510, SPGN390, SPGN461, SPGN395 or SPGN615 and admission to the teacher education program

SPGN477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPGN481 Assistive and Instructional Technology in Special Education 3 hrs
Identification and Implementation of instructional and assistive technology in the special general education curriculum. Educational software,

productivity, applications, digital media, adapted microcomputers, voice input/output, switching device, alternative input methods, adaptive output methods and other adaptive and assistive devices are explored. Course provides a broad knowledge base rather than disability specific information.

Prereq: SPGN251; a computer course; admission to the teacher education program

SPGN485 Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities 2 hrs
Secondary and post-secondary special education curricula, programs and services are explored, with focus on the cognitive, personal, social, emotional, physical, prevocational and vocational needs of adolescents and young adults with disabilities.

SPGN486 Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities 2 hrs
Application of transition fundamentals appropriate to the student's area of endorsement. Observation and direct work with adolescents and young adults with disabilities is required. A transition plan will be completed.

SPGN491 Student Teaching Seminar — Special Education 2 hrs
Seminar accompanies student teaching in Special Education, and provides a transition from the academic environment to the professional setting. Concurrent with special student teaching.

Prereq: admission to the teacher education program

SPGN497/498/499 Independent Study 1/2/3 hrs
Directed study of a problem or group of problems in special education.

Prereq: department permission

Cognitive Impairment Courses (SPCI)

SPCI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPCI240 Preclinical Experiences — Cognitive Impairment 3 hrs
This introductory course provides exposure to and experience with K-12 students with cognitive impairment. EMU students will be encouraged to evaluate and examine their motivation to become a teacher of students with cognitive impairment, and will be introduced to all aspects of the teaching profession. In this course students will participate in field experiences with K-12 students with cognitive impairment.

SPCI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPCI350 Introduction to Cognitive Impairment

3 hrs

Introduction to the field of cognitive impairment, its history, terminology, causes, health, medical and sensorineural components. Philosophies influencing educational practice and life management approaches are presented.

Prereq: SPGN251, PSY101

SPCI377/378/379 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPCI427 Education of the Elementary Student with Cognitive Impairment

2 hrs

Development of programs, materials and instructional techniques appropriate to meet the needs of the child with cognitive impairment from birth to age 12.

Prereq: SPCI240, SPCI350 and admission to the teacher education program.

SPCI429 Education of Students in Programs for Mild Cognitive Impairment

4 hrs

Philosophy of education, curriculum, assessment, teaching methods and classroom management techniques for students with mild cognitive impairment across the K-12 spectrum. A three-hour per week field experience is an integral component of the course.

Prereq: SPCI240, SPCI35 and admission to the teacher education program.

Prereq/Coreq: SPCI483

SPCI477/478/479 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPCI483 Education of Students in Programs for Moderate or Severe Cognitive Impairment

4 hrs

Philosophy, curriculum, assessment, teaching methods and classroom management techniques for students with moderate or severe cognitive impairment, or with multiple impairments. A three-hour per week field experience is an integral component of the course.

Prereq: SPGN240, SPCI350 and SPGN461; admission to the teacher education program

SPCI497/498/499 Independent Study

1/2/3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Emotional Impairment Courses (SPEI)

SPEI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPEI240 Pre-clinical Experiences — Emotional Impairment

3 hrs

This introductory course provides exposure to and experience with K-12 students with emotional impairment. Students are encouraged to evaluate and examine their motivation to become a teacher of students with emotional impairment, as they are introduced to all aspects of the teaching profession. In this course, students participate in field experiences with K-12 students with emotional impairment and have opportunities to visit a variety of placements serving K-12 students with emotional impairment.

SPEI277/278/279 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPEI301 Children and Adolescents with Emotional Impairment

4 hrs

This course provides an exploration of conceptual models that explain disturbed behavior of children and adolescents. Definitive diagnostic categories will also be explored in context of their use in a variety of education settings by teachers of children and adolescents with emotional impairment. *Course available to Emotional Impairment majors only.*

Prereq: SPEI240; SPGN251; not open to students on academic probation

SPEI377/378/379 Special Topics

1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPEI401 Programming, Methods and Curriculum for Elementary Students with Emotional Impairment

4 hrs

Teaching methods, techniques and materials for educating elementary age children with emotional impairments will be presented. In addition, types of programs serving elementary age students with emotional impairment, as well as the individualized education program and federal and state rules governing the programs will be discussed. *Course available to Emotional Impairment majors only.*

Prereq: SPEI301, SPGN510 and admission to the College of Education

SPEI449 Beyond Behavior

3 hrs

An examination of systemic topics beyond the scope of the Individuals with Disabilities Education Act (IDEA) that impact the well-being of youth and adolescents with emotional-behavioral impairments:

social, cultural and environmental factors; home disruptions; internalized disorders; externalized disorders; and pervasive disorders. *Course available to Emotional Impairment majors only.*
Prereq: SPEI301; SPGN390; SPGN395; SPGN461 junior standing and admission to the College of Education

SPEI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPEI488 Curriculum, Methods and Programming for Secondary Students with Emotional Impairment 2 hrs
Teaching methods, techniques and materials appropriate for adolescents with emotional impairment are presented. Transition fundamentals are addressed and students are provided opportunities to observe and interact with adolescents and young adults with emotional impairment. Students participate in the development of a transition plan through a structured field experience.

SPEI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Hearing Impairment Courses (SPHI)

SPHI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPHI228 Education of Students with Hearing Impairment 3 hrs
Designed to cover the history of the education of persons with hearing impairments, and to provide an overview of educational programming, psychological adjustment, parent counseling, communication methods and various philosophical approaches to education of persons with hearing impairments.
Prereq/Coreq: SPGN251

SPHI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPHI375 Fundamentals of Sign Communication 2 hrs
A study of the rationale for use of manual communication systems with persons with hearing impairments, including American Sign Language, manually-coded English Sign systems and fingerspelling. Beginning-level skills in manual communication will be developed. Observation of use of sign language in school programs will be required.

SPHI377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPHI387 Introductory Practicum — Students with Hearing Impairment 1 hr
Thirty clock hours of supervised observation and work with students with hearing impairments.
Prereq: SPHI228; admission to the teacher education program

SPHI391 Language for Students with Hearing Impairment 4 hrs
Language development of children with prelingual hearing impairments. Survey of various methods of teaching language, including natural and structured approaches.
Prereq: SPHI228; admission to the teacher education program

SPHI392 Introduction to Audiology 2 hrs
Medical and surgical treatment of pathologies of the ear. Hearing screening tests, basic audiometric testing procedures and audiometric interpretation.
Prereq: SPSI332 and SPSI336

SPHI394 Aural Habilitation/ Rehabilitation 3 hrs
A study of the avenues of receptive language available to persons with impaired hearing; the development of auditory learning, auditory training and the training of speechreading. Includes the understanding of group and individual hearing aids, other assistive technology and surgical implants.
Prereq: SPHI392

SPHI435 Phonetics and Hearing Impairment 2 hrs
Articulatory and acoustic phonetics. Speech reception of persons with hearing impairments: auditory cues available relative to the individual's hearing loss; visual, tactile and kinesthetic correlates. Characteristics of speech production of speakers with impaired hearing. Phonetic transcription in International Phonetic Alphabet, Northampton, and Thorndike orthographic systems. Phonological level speech assessment.
Prereq: SPSI332 and SPSI336

SPHI436 Speech Methods for Students with Hearing Impairment 2 hrs
Methods of assessment and intervention in the development of intelligible connected speech in persons with hearing impairments.
Prereq: SPHI435; admission to the teacher education program

SPHI437 Adaptive Curriculum for Students with Hearing Impairment 3 hrs
Principles and methods of teaching academic subjects to students with hearing impairments. Classroom procedures and materials especially designed for students with hearing impairments, as well as the adaptation of regular curricula and materials will be presented.
Prereq: SPHI391; admission to the teacher education program

SPHI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPHI487 Speech Practicum — Students with Hearing Impairment 1 hr
Thirty clock hours of supervised observation and speech work with persons with hearing impairments.
Prereq: SPHI436; admission to the teacher education program

SPHI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Learning Disabilities Courses (SPLI)

SPLI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

SPLI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

SPLI377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

SPLI468 Education of Children with Learning Disabilities 2 hrs
A study of educational and psychological problems of children with neurological and perceptual defects. Theories as they relate to the central nervous system, teaching techniques, classroom management, case studies, research and teacher-child and parent relationships will be reviewed.
Prereq: SPGN251 or SPGN510; admission to the teacher education program; senior standing

SPLI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPLI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Physical Impairment or Other Health Impairment Courses (SPPI)

SPPI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPPI240 Preclinical Experiences — POHI 3 hrs

This introductory course provides exposure to and experience with the physically or otherwise health impaired. Students will be encouraged to evaluate and examine their motivation for becoming a teacher of the physically and health impaired and be introduced to all aspects of the teaching profession. Students will participate in a field experience, being exposed to all age and grade levels. They will have an opportunity to visit a variety of settings that employ teachers of the physically and health impaired and be exposed to the ancillary services found in most POHI delivery models.

SPPI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPPI310 Developmental Sciences for Teachers of the Physically and Health Impaired 4 hrs

A study of developmental human anatomy and physiology with emphasis upon the impact of the nervous system and its integration, function and control of the other body systems and their functions. The relationship of normal development to disability is explored and infused throughout the course. Laboratory periods are required where students can investigate the principles covered in lecture using anatomical models and specimens.

Prereq: BIOL105 and SPGN251

SPPI360 Pathology of Physical and Health Impairments 3 hrs

A comprehensive study of orthopedic, neurologic, health and other handicapping conditions common to children and youth comprising the population found in educational settings serviced by the POHI teacher. Medical terminology and procedures are also introduced.

Prereq: SPPI310

SPPI377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPPI412 Ancillary Services and Health Procedures for Teachers of Physically Impaired 2 hrs

Information concerning the individual disciplines that provide ancillary services to physically and

health impaired students. Skills involving the use of adaptive equipment, manipulation of orthotics, and implementation of health intervention and maintenance procedures will be learned.

Prereq: SPPI310 or instructor permission; admission to the teacher education program

SPPI414 Educational Strategies for Teachers of the Physically Impaired 4 hrs

This course encompasses information and develops skills needed to develop, implement, and evaluate curriculum and methods for the preschool and elementary physically and otherwise health impaired student. All aspects of cognitive, affective, and psychomotor education are explored. Emphasis is placed upon individualized instruction and programming, adaptations and modification of instructional methods and materials, remediation, communication, problem-solving, decision-making, personal adjustment, prevocational education and leisure activities. A directed classroom laboratory is required.

Prereq: SPPI360 and CURR304 or CURR305; admission to the teacher education program

SPPI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPPI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Speech/Language Pathology Courses (SPSI)

SPSI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPSI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPSI332 Acoustic Phonetics: Speech Science 2 hrs

Basic principles of acoustic science and speech perception. Consideration of speech as an acoustical phenomenon and the analysis of speech patterns through measurements of sound and spectral analysis.

Coreq: SPSI336

SPSI334 Applied Phonetics 2 hrs

An introduction to the use of the International Phonetic Alphabet Classification and production

of English speech sounds. Phonemic transcription, including some analysis of deviant and variant speech. Lab experiences weekly.

Coreq: SPSI335

SPSI335 Communication Disorders 3 hrs
A study of the major communication disorders as deviations from normal physical and social behavior. Etiology and symptomatology.

Coreq: SPSI334

SPSI336 Physiologic Phonetics: Anatomy and Physiology 3 hrs

Anatomy and physiology of normal speech production, consideration of speech as a motor behavior, physiological investigation of speech and voice.

Coreq: SPSI332

SPSI337 Language Acquisition 3 hrs

The development of speech, language, hearing and communication from birth. The interrelationship between cognitive development and language acquisition and usage. Developmental processes and milestones in phonology, morphology, syntax and semantics and pragmatics as a basis for understanding the effects of speech, language and hearing problems of the individual.

SPSI340 Phonological and Articulation Disorders 3 hrs

Issues of phonological development and theory as well as diagnosis and treatment of articulation and phonological problems. Focuses on preschool, elementary and secondary individuals.

Prereq: SPSI332, SPSI336 and SPSI337; Coreq: SPSI342

SPSI342 Language Disorders in Children 3 hrs

Issues in the theoretical bases of language disorders as well as diagnosis and treatment of language disorders in children.

Coreq: SPSI340

SPSI343 Clinical Methods in Speech-Language Pathology 2 hrs

Basic principles of evaluation and treatment in speech-language pathology. Supervised clinical observation in the Speech and Hearing Clinic.

Prereq: SPSI340, SPSI342, department permission

SPSI344 Clinical Practice in Speech-Language Pathology 2 hrs

Supervised clinical experience with language, phonological and articulation disorders.

Prereq: SPSI343 and department permission

SPSI347 Management of Acquired Neurogenic Communication Disorders 3 hrs

This course is designed to introduce the student to the diagnosis and treatment of acquired neurogenic communication disorders, including aphasia, apraxia of speech, dysarthria, right hemisphere impairment and cognitive communication disorders.

SPSI377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPSI452 Voice 3 hrs
A study of the etiology, diagnosis and treatment of functional and organic voice disorders, including defects of loudness, pitch and quality.
Prereq: SPSI332, SPSI336

SPSI454 Stuttering 3 hrs
Causation, symptomatology and remedial procedures of stuttering; specific therapy procedures in the clinic, the school and the home.
Prereq: SPSI340, SPSI342

SPSI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPSI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Visual Impairment Courses (SPVI)

SPVI177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPVI277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPVI365 Braille 3 hrs
Developing proficiency in reading and writing error-free braille and the reading of music braille.
Prereq/Coreq: SPGN251

SPVI366 The Eye and Vision — Anatomy and Physiology 2 hrs
Anatomy, physiology, and pathology of the organs of vision, refractive errors, and principles of correction. Educational implications of visual impairment in children, rather than strictly medical achievements. Interpretation of medical reports to parents, students and teachers.
Prereq: SPGN251

SPVI368 Mobility Training for Persons with Visual Impairment 2 hrs
Sensory training, study, and development of cane techniques as they apply to mobility for persons

with visual impairment. Introduction to leader dog program. Practicum included. Offered on the junior, senior and graduate level.
Prereq: junior standing

SPVI369 Community Considerations for Persons with Visual Impairment 3 hrs
The lifestyle and needs of persons with visual impairment; appropriate considerations the community must take for all levels of physical, emotional, and vocational development. Field trips and classroom experiences, acquaintance with a wide variety of service-oriented facilities for persons with visual impairment.
Prereq: SPGN251

SPVI377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPVI464 Methods of Teaching Children who are Blind 3 hrs
A study of the various methods used in educating and assessing children who are blind, and the adaptation of these methods to the teaching of school subjects for these students. Further emphasis on Nemeth Code, Cranmer abacus and other teaching materials and devices.
Prereq: SPGN251; admission to the teacher education program

SPVI465 Braille II: Nemeth Code 3 hrs
Development of proficiency in reading and writing Nemeth Braille code for mathematics and science notation.
Prereq: SPVI365; admission to the teacher education program

SPVI467 Education of Children with Visual Impairment 2 hrs
Organization and administration of various plans for educating children with visual impairment. Adaptation of various teaching methods and materials for these children, as well as comparison of various vision testing methods and devices.
Prereq: SPGN251; admission to the teacher education program

SPVI469 Technology for Persons with Visual Impairment 3 hrs
Experience with a variety of tools available for use by persons with visual impairment. The tools and devices covered include those designed to provide assistance in reading, Braille and low-vision.
Prereq: admission to the teacher education program

SPVI477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPVI497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Exercise Science and Athletic Training Courses (SPMD)

SPMD119 Orientation to Sports Medicine 1 hr
A class for students interested in sports medicine. An introductory course to orient students to the specialized major areas of athletic training and exercise science.

SPMD177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SPMD201/ATTR201 Human Anatomy for Sports Medicine 3 hrs
Required lecture course for sports medicine majors that examines the structure of the human body. In addition to lecture format, computer graphic software will be utilized to enhance the learning process.
Prereq: BIOL105 or BIOL110, departmental permission and 2.5 GPA in sports medicine

SPMD202/ATTR202 Human Physiology for Sports Medicine 3 hrs
Required lecture course for sports medicine majors that examines the structure and function of the human body.
Prereq: BIOL105 or BIOL110, departmental permission and 2.5 GPA in sports medicine; sophomore, junior or senior standing

SPMD221 Therapeutic Modalities for Athletic Trainers 2 hrs
A detailed study, with laboratory experiences, of theory, applications, physiological effects, indications, and contraindications of commonly used therapeutic modalities in the practice of athletic training.
Prereq: SPMD119

SPMD269 Anatomy and Physiology for Dietetics 3 hrs
This course will provide an essential examination of the structure and function of the human organism. Emphasis will be placed on the interactions of the body systems, and all aspects of anatomy and physiology will be presented as they relate specifically to the dietetics curriculum.

SPMD277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

**SPMD280 Pharmacology
for Sports Medicine** 2 hrs

Provides basic components of pharmacology, theories of drug actions, physiological processes mediating drug actions, variables affecting drug actions, benefits plus unusual and adverse drug therapy responses. Physiological and cultural aspects of drug therapy and self-medication are explored.

Prereq: BIOL105 or BIOL110, SPMD202/ATTR202, CHEM120 or CHEM121

**SPMD300/PHED300
Physiology of Exercise** 4 hrs

A lecture/laboratory course concerned with human responses and adaptations to muscular activity. The enhancement of health and physical fitness for the general population, optimizing performance in the various types and levels of competitive athletics.

Prereq: SPMD201/ATTR201 and SPMD202/ATTR202 or equivalent.

**SPMD305 Kinesiology-Tissue
Mechanics** 3 hrs

A required course for majors in the sports medicine program. Instruction will focus on the laws of physics as they are adapted to explain motion and human performance.

Prereq: SPMD201/ATTR201, SPMD202/ATTR202 and PHY221

**SPMD325 Practicum in
Exercise Science** 2 hrs

A 120-hour observational experience in a department-approved agency under the supervision of certified personnel. Areas of observation may include but are not limited to cardiac rehabilitation, wellness center management, worksite health promotion or strength and conditioning.

Prereq: PHED300/SPMD300

SPMD377/378/379 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

**SPMD380 Behavioral Aspects
of Sports Medicine** 3 hrs

A course to teach student psychological skills that can be applied to facilitate the rehabilitation process. The student will be able to motivate patients/injured athletes to adhere to their treatment program, manage their illness/pain more effectively and rebuild their confidence in their physical skills.

Prereq: PSY101/102

**SPMD410 Laboratory Techniques
in Human Performance Analysis** 4 hrs

A lecture and laboratory course that emphasizes exercise testing and assessment techniques. Specific instruction will focus on assessing anaerobic capacity, indirect and direct measures of aerobic capacity, graded exercise testing, various body composition techniques and strength and flexibility assessment.

Prereq: PHED300/SPMD300 and candidacy.

**SPMD421 Legal Aspects
of Sports Medicine** 2 hrs

This course examines the legal issues surrounding the field of sports medicine including: individual rights, due process, selected legal concepts and principles, liability, safe environments, risk management, contracts, insurance and other select topics.

**SPMD430 Principles of
Electrocardiography** 3 hrs

A three-hour undergraduate course on the basics of electrocardiography. The student will learn the basic concepts of conduction, rate, rhythm, axis determination, hypertrophy infraction and the effects of drug therapy.

Prereq: PHED300/SPMD300 and candidacy

**SPMD431 Pathophysiology for
Sports Medicine** 3 hrs

A required course for sports medicine majors that relates normal body functioning to the physiologic changes that occur as a result of injury and disease, and examines the effects of physical activity on these processes.

Prereq: PHED300/SPMD300 and candidacy

**SPMD432 Introduction to
Exercise Programming** 3 hrs

A required course for students majoring in exercise science. This course provides information needed to develop, implement, and manage exercise programs in a variety of settings. Within the context of each program setting the following issues will be discussed: 1) the health screening; 2) implementation and management of the exercise prescription; 3) identification and development of exercise leadership skills; and 4) exercise compliance issues.

Prereq: SPMD410 and candidacy

**SPMD433 Principles of Strength
and Conditioning** 3 hrs

The purpose of this course is to have the student integrate components within the discipline of exercise science (e.g., exercise physiology, biomechanics, growth and maturation, nutrition, etc.) and demonstrate an understanding of their utility in the design and implementation of aerobic and anaerobic exercise programming. Special emphasis will be placed within the area of resistance training, and the opportunity to prepare for professional fitness certification.

Prereq: SPMD305, PHED300/SPMD300 and department permission.

SPMD477/478/479 Special Topics 1/2/3 hrs

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.

Prereq: candidacy and department permission

**SPMD480 Internship —
Exercise Science** 8 hrs

A 600-hour full semester field experience in a department-approved agency under the supervision of certified personnel. Areas of specialization include but are not limited to cardiac rehabilitation, wellness center management, worksite health promotion or strength and conditioning.

Prereq: candidacy and department permission

**SPMD497/498/499
Directed Study** 1/2/3 hrs

Directed study in areas not covered in other course offerings, or greater depth of study in areas in which the student has a continuing interest. Students will be assigned to select faculty members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above, and who have completed the appropriate background courses.

Prereq: department permission

Spanish Courses (SPNH)

SPNH121 Beginning Spanish I 5 hrs

First semester of beginning Spanish covering basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. Regular use of language laboratory and ancillaries (e.g., workbook, compact discs, tapes and publisher Internet resources).

SPNH122 Beginning Spanish II 5 hrs

Second semester of beginning Spanish covering basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. Regular use of language laboratory and ancillaries (e.g., workbook, compact discs, tapes and publisher Internet resources).

Prereq: SPNH121 or by placement exam

SPNH177/178/179 Special Topics 1/2/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SPNH201 Intermediate Spanish I 4 hrs

First semester of second-year Spanish focusing on a review of Spanish grammar, composition, and oral work. Regular use of language laboratory and ancillaries (e.g., workbook, compact discs, tapes and publisher Internet resources). *In Spanish.*

Prereq: SPNH122 or by placement exam

SPNH202 Intermediate Spanish II 4 hrs

Second semester of second-year Spanish focusing on a review of Spanish grammar, composition, and oral work. Regular use of language laboratory and ancillaries (e.g., workbook, compact discs, tapes and publisher Internet resources). *In Spanish.*

Prereq: SPNH201 or by placement exam

**SPNH221 Intermediate
Spanish Reading** 3 hrs

An introduction to literary criticism as applied to Hispanic literature. Extensive reading of materials in Hispanic literature and culture. *In Spanish.*

Prereq: SPNH202 or by placement exam

- SPNH222 Intermediate Spanish Reading** 3 hrs
An introduction to literary criticism as applied to Hispanic literature. Extensive reading of materials in Hispanic literature and culture. *In Spanish.*
Prereq: SPNH221 or by placement exam
- SPNH261 Introduction to Professional Language Study** 3 hrs
This course introduces students to the application of professional languages in a variety of settings focusing on oral and written communication. Students acquire the vocabulary and phrases of basic professional interactions, learn to translate documents of different professions and acquire basic interpreting techniques. Students with interests in other careers will find the course helpful and they can complete special projects.
Prereq: SPNH121, SPNH122, SPNH201, SPNH202, SPNH221, SPNH222
- SPNH277/278/279 Special Topics** 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission
- SPNH301 The Cultures of Spain** 3 hrs
A panoramic view of the peoples of Spain, their cultures, environment and way of life. *In Spanish.*
Prereq: SPNH202/222 or department permission
- SPNH302 The Cultures of Spanish America** 3 hrs
A panoramic view of the cultures, the peoples and the environment of Spanish America. *In Spanish.*
Prereq: SPNH202/222 or department permission
- SPNH341 Survey of Spanish Literature** 3 hrs
This survey course covers the major authors and literary movements from the beginning of peninsular Spanish literature to the end of the 17th century. *In Spanish.*
Prereq: SPNH222 or department permission
- SPNH342 Great Works of Spanish Literature** 3 hrs
Students will read, analyze and discuss in class a selection of great works of Spanish literature from a variety of genres (poetry, prose, theatre) and from a variety of historical periods. Course readings will be discussed in their historical, cultural and social contexts. *In Spanish.*
Prereq: SPNH222 or department permission
- SPNH343 Spanish Grammar and Composition** 3 hrs
Practice in writing for a variety of purposes and a systematic review of Spanish grammar. Frequent written assignments.
Prereq: SPNH202/222 or department permission
- SPNH344 Spanish Conversation and Composition** 3 hrs
Emphasis on improved pronunciation, acquisition of vocabulary and idioms for daily life, frequent written compositions and the development
- of greater oral proficiency. Includes a formal proficiency assessment.
Prereq: SPNH202 and SPNH222 or department permission
- SPNH351 Survey of Spanish-American Literature** 3 hrs
This course deals with the major writers of Spanish America from the colonial period through modernism. *In Spanish.*
Prereq: SPNH222 or department permission
- SPNH352 Great Works of Spanish-American Literature** 3 hrs
Students will read, analyze and discuss in class a selection of great works of Spanish-American literature from a variety of genres (poetry, prose, theatre) and from a variety of historical periods. Course readings will be discussed in their historical, cultural and social contexts. *In Spanish.*
Prereq: SPNH222 or department permission
- SPNH361 Spanish for International Trade** 3 hrs
This course is intended for students who already have a solid intermediate-level command of Spanish and who wish to acquire minimum professional competence in the Spanish language as it is used in the world of international business. It includes practice in various forms of business communication, both written and oral.
Prereq: SPNH343 or department permission
- SPNH377/378/379 Special Topics** 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission
- SPNH388 Internship** 1 hr
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission
- SPNH443 Advanced Spanish Grammar and Composition** 3 hrs
Extensive written practice for a variety of purposes integrating advanced grammatical structures. Frequent written assignments.
Prereq: SPNH343 and SPNH344 or department permission
- SPNH444 Advanced Spanish Conversation and Composition** 3 hrs
Emphasis on greater oral facility, acquisition of additional vocabulary and idioms, advanced sentence structures and frequent written compositions. Includes a formal proficiency assessment.
Prereq: SPNH343/344 or department permission
- SPNH445 Spanish-American Prose** 3 hrs
A study of selected topics in Spanish-American literature. May be repeated for credit if the material of the course is in another area. *In Spanish.*
Prereq: SPNH352 or department permission
- SPNH446/447 Business Spanish** 3/3 hrs
Required of students majoring in business Spanish. Practice with Spanish commercial correspondence, translation of Spanish business documents and reading of foreign periodical publications on economics and international trade. An overview of international economic organizations and trade agreements related to Spanish-speaking countries and a review of existing bibliography on commercial Spanish.
Prereq: SPNH361 or department permission
- SPNH448 Modern Drama** 3 hrs
The development of modern Spanish drama and its various types. Works of the principal dramatists of the 19th and 20th centuries. *In Spanish.*
Prereq: SPNH342 or department permission
- SPNH449 Romanticism** 3 hrs
A study of the major works of Hispanic Romanticism. *In Spanish.*
Prereq: SPNH342 or department permission
- SPNH450 Spanish-American Theatre** 3 hrs
A study of the theatre in Spanish America from its beginning to the present. *In Spanish.*
Prereq: SPNH352 or department permission
- SPNH454 Modernism in Spanish America** 3 hrs
A survey of the literary movement known as "modernismo" in the literature of Spanish America. *In Spanish.*
Prereq: SPNH352 or department permission
- SPNH455 The Generation of 1898** 3 hrs
A study of the works of the main authors of the generation of 1898, from Unamuno to Ortega y Gasset. *In Spanish.*
Prereq: SPNH342 or department permission
- SPNH456 Scientific and Technical Spanish I** 3 hrs
Study of the fundamental Spanish terminology required for scientific and technical contexts, including basic vocabulary for mathematics, geometry and physics. In-depth study of at least one scientific or technical field (e.g., automobile industry, automated processes). Students will explore the vocabulary and resources in their chosen fields.
Prereq: SPNH343 or department permission
- SPNH457 Scientific and Technical Spanish II** 3 hrs
Study of the fundamental Spanish terminology required for scientific and technical contexts, including basic vocabulary for computers, chemistry and biology. In-depth study of at least one scientific or technical field (e.g., data processing, nutrition). Students will explore the vocabulary and resources in their chosen fields.
Prereq: SPNH456 or department permission
- SPNH463 Don Quixote** 3 hrs
The universal qualities of both the book and its author, as well as their relation to Spanish life and literature of the period. *In Spanish.*
Prereq: SPNH341 or department permission

SPNH464 Drama of the Golden Age 3 hrs
The drama of the 16th and 17th centuries. Works of the major authors will be read and discussed. *In Spanish.*
Prereq: SPNH341 or department permission

SPNH465 Modern Novel 3 hrs
Study of the development of the modern novel in Spain during the 19th and 20th centuries. Representative novels will be read and discussed *in Spanish.*
Prereq: SPNH342 or department permission

SPNH471 Culture and Literature of the Hispanic Groups in the United States 3 hrs
A study of the cultures of the major Hispanic groups in the U.S. The study of representative literary works is intended to lead to an increased appreciation of the cultural roots and current life styles of these groups. *In Spanish.* A minimum of 24 hours of field experience required.

SPNH477/478/479 Special Topics 1/2/3 hrs
These courses deal with subject matter not provided in other department offerings. Students may elect such a course several times, provided different topics are studied.
Prereq: department permission

SPNH482 Language of the Hispanic Groups in the United States 3 hrs
A survey of present-day social and regional variations in the Spanish spoken in the U.S. and the historical background of these variations. *In Spanish.* A minimum of 24 hours of field experience required.
Prereq: an introductory course in linguistics or department permission

SPNH488/489 Internship 2/3 hrs
Provides an opportunity for the student to extend theoretical classroom learning through working experience in an appropriate setting. Field experience will be supplemented by regular meetings with the faculty supervisors. *Offered on a credit/no-credit basis.*
Prereq: department permission

SPNH490 Intensive Spanish 6 hrs
An intensive linguistic and cultural immersion experience of at least six weeks' duration in a Spanish-speaking country. Instruction at many different levels. May be repeated for credit. *In Spanish.*

SPNH492 Senior Seminar in Spanish 3 hrs
Senior level course for Spanish majors in which they demonstrate knowledge and performance in the areas of language, linguistics, cultures and literatures of Hispanic peoples. Students develop a capstone portfolio, demonstrate proficiency levels in oral and written Spanish, and make a final oral presentation to students and faculty. *In Spanish.* Course available to Spanish and Spanish (Secondary Teacher Certification) majors.
Prereq: at least 18 hours of 300-400 level Spanish, including SPNH443 and/or SPNH444; department permission
Concurrent Prereq: SPNH443, SPNH444

SPNH497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

School of Staff and Command Courses (SSC)

SSC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SSC255 Emergency Preparedness Planning 3 hrs
An introduction to emergency planning, including assessment of community hazards and resources, for students responsible for civil defense or emergency-preparedness tasks. Provides a planning and analytical framework, hazard/vulnerability analysis, that can be applied to the local comprehensive emergency-management context.

SSC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SSC285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

SSC306 Issues in Emergency Preparedness 3 hrs
This course is designed for emergency managers to explore strategies in management and organizational development for improving skills and understanding of an effective emergency management organization. It is comprised of five key areas: legal issues, strategic management, executive skills, service quality in the public sector, and stress management.
Prereq: SSC255 or department permission

SSC309 Natural Hazard Mitigation 3 hrs
The purpose of natural hazard mitigation is to introduce the concepts and skills of hazard mitigation and recovery planning, vulnerability risk analysis and implementation of a community-wide program, and to relate natural hazard mitigation processes to disaster planning.
Prereq: SSC255 or department permission

SSC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

SSC387 Co-operative Education 3 hrs

SSC433 Arson Investigation 3 hrs
An examination of the nature and causes of suspicious and incendiary fires, their detection and investigation; involves classroom lecture and field training. Students will conduct fire scene investigations, collect evidence, document findings, and participate in a mock trial. Assumes no previous experience in fire investigation. Students must provide their own 35mm camera, safety shoes, gloves and hard hat.
Prereq: CHEM117/118 or PHY221

SSC435 Incident Command 3 hrs
The study of complex fire situations, including analysis of prefire planning, establishing and managing the command post, and effective management of complex fireground operations. Emphasizes the study of multiple company response and the efficient utilization of available and prospective resources in handling major fires.
Prereq: PLSC450 or department permission

SSC441 Foreign and Domestic Terrorism for First Responders 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.

SSC452 Current Trends in Emergency Management 3 hrs
This course was designed to provide students with the knowledge of emergency management and the philosophy of emergency planning for community, business and industry. Students will develop a management perspective on issues, concerns and constraints effective to emergencies that responders must think about today.
Prereq: SSC255

SSC454 Issues and Skills for Senior Administrators 3 hrs
This course deals with issues facing the senior commander. It provides an analysis of the various positions within an organization, and the best way to accomplish organizational objectives. Methods for assuming control, how to use time and how to manage stress are the major topics presented.
Equivalent to PLSC451.
Prereq: PS453 or department permission

SSC475 Managing Correctional Agencies and Facilities 3 hrs
A study of administrative practices in correctional agencies and facilities, including attention to organization structure, management problems, financing, rights of offenders, intervention strategies and community-based programs.
Prereq: PLSC450 or department permission

SSC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

SSC487 Co-operative Education 3 hrs

SSC497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

School of Technology Studies Courses (STS)

STS150 Understanding Technology 3 hrs
A course to develop basic technological literacy by providing an introduction to technological concepts and problems and to the technology literature. Several concrete technological systems and their dynamics, particularly as they relate to society will be examined.

STS177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

STS201 Microcomputer Applications in Technology 3 hrs
An introduction to microcomputers and their applications in technology. The course contains an introduction to word processing, spreadsheets, database management and their applications.

Prereq: basic keyboard skill is recommended

STS224 Solving Quantitative Problems in Technology 3 hrs
Application of computer-based tools and procedures to the solution of mathematical problems encountered in technology.

STS277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

STS285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.

Prereq: department permission

STS377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

STS387 Co-operative Education 3 hrs

STS420/WGST420 Women and Technology 3 hrs
This course surveys gender issues surrounding technology development, transfer and use. We will examine these issues from historical, contemporary and global perspectives.

STS477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

Prereq: department permission

STS487 Co-operative Education 3 hrs

STS495 Technology, Values, and the Future 3 hrs
The development of modern technological society: major breakthroughs in the physical and life sciences, the influence of some of these breakthroughs on technological development, the consequent shaping of new world views and, hence, values in contemporary and future societies. Interrelationships between technology and political, socioeconomic and environmental systems; the relationship between technology and values.

STS497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.

Prereq: department permission

Social Work Courses (SWRK)

SWRK120 Introduction to Social Work Services and Professional Roles 3 hrs
An overview of the social work profession including its philosophy, values, professional roles, current trends and models in varied practice arenas as criminal justice, mental health, child and family services, public welfare services and medical and industrial settings. *Concurrent registration in SWRK222/251 is permitted, but not required.*

SWRK177/178/179 Special Topics 1/2/3 hrs
Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

SWRK222 Social Welfare Policies and Services 3 hrs
A survey of welfare institutions and policies in their historical and modern contexts. American social welfare services as related to the economic, political and sociocultural conditions, and prevailing ideologies. *Concurrent registration in SWRK120/251 is permitted, but not required.*

SWRK251 Self Assessment and Development for Social Work 1 hr
This course is required for admission to the Social Work program. It is designed to help students to self-assess their personal preparation for the social work profession. Exercises will help students explore their own values, particularly with respect to culture, gender and sexual orientation. Students will learn about the social work program sequence and requirements. Opportunities will be provided for learning about working in groups, being assertive and developing skills for educational survival. *Concurrent registration in SWRK120/222 is permitted, but not required.*

SWRK277/278/279 Special Topics 1/2/3 hrs
Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.

Prereq: department permission

SWRK287 Cooperative Education in Social Work 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternating with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum component of SWRK388 must enroll in SWRK388 concurrently with one of the cooperative courses. Cooperative education does not substitute for the field placement courses required of all social work majors. *Prereq: SWRK120, sophomore standing, approval of the Cooperative Education Office and department permission*

SWRK315 Theoretical Bases for Social Work Practice 3 hrs
Integrating, supplementing, and translating into social work practice students' knowledge of human beings and their social environments. The purposes for which the social work professional intends to use the knowledge and the values that form the base of professional practice. *Prereq: (SWRK120, SWRK222), SWRK251; PSY101, SOCL105, EDPS325 or IHHS260 and PSY360; social work majors only*

SWRK317 Social Work Practice I 3 hrs
The first course in a sequence of social work practice, designed to prepare the student for field experience. Relationship building, information gathering and preliminary assessment, and contracting. Must be taken concurrently with SWRK388. *Prereq: SWRK315; social work majors only*
Coreq: SWRK388;

SWRK360 Practice Issues with People of Color 3 hrs
Examines social work methodology and techniques in the development and delivery of social work services to people of color. Focuses on expanding the range of perception, thought and practice skills relative to race and culture. Personal values toward racial and cultural variation are examined

in the context of social work values and practice.
Course available to social work majors only.
Prereq: SWRK120, SWRK222 and SWRK251

SWRK377/378/379 Special Topics 1/2/3 hrs
Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.
Prereq: department permission

SWRK387 Cooperative Education in Social Work 3 hrs
Employment for pay in a work setting chosen to provide practical experience related to social work. The cooperative education sequence is alternating with full-time attendance at the University. Students who wish to substitute a cooperative education course for the practicum component of SWRK388 must enroll in SWRK388 concurrently with one of the cooperative courses. Cooperative education does not substitute for the field placement courses required of all social work majors.
Prereq: SWRK120, sophomore standing, approval of the Cooperative Education Office and department permission

SWRK388 Preprofessional Practicum 3 hrs
The student is assigned to a human services agency or organization for the semester for four hours weekly. The agency, in agreement with the faculty instructor, provides social work learning experiences and social work supervision. A two-hour weekly seminar relates practicum experience to theoretical knowledge. For students majoring in social work, students minoring in social work, and students pursuing related disciplines such as gerontology and criminal justice, who are interested in an introduction to practical aspects.
Prereq: social work majors only
Coreq: SWRK317

SWRK403 Practice Issues with Women 3 hrs
Builds upon and integrates various theoretical frameworks to provide a basis for social work practice with women. An important theme in the course is the exploration of personal attitudes and beliefs as they effect social work practice with women.
Prereq: PSY242, WGST200, SOCL344, WGST344, ANTH355, WGST355 or PLSC365 and SWRK315; social work majors only

SWRK405 Analysis and Change of Social Welfare Policies 3 hrs
Current social policy and its intended and unintended effects on client populations. Policy analysis and strategies and methods for policy change.
Prereq: social work majors only
Coreq: SWRK488 or SWRK489

SWRK408 Social Work Practice II 3 hrs
The generalist conceptual framework for social work practice. Practice values, models of assessment, and phases of planned sequential change.
Coreq: SWRK488

SWRK409 Social Work Practice III 3 hrs
A continuation of SWRK408; examines in more depth a variety of social work practice models, interventive strategies, methods, roles and skills.
Prereq: social work majors only
Coreq: SWRK489

SWRK413/WGST413 Women and Aging 3 hrs
Designed to provide social work, women's studies, and gerontology students with the skills and sensitivity to understand the issues, needs and positive attributes of women as they grow older. Students will examine the lives of women in special groups, such as older minority women, caregivers, widows and institutionalized elderly women. Students will learn skills to provide effective services to older women in a variety of human service settings.
Prereq: social work major or minor or department permission

SWRK420 Working with Aging People 3 hrs
The role of social worker with aged people. The delivery of social services to the aged with a focus on practice approaches and techniques unique to various social service settings.
Prereq: social work major or minor or department permission

SWRK431 Substance Abuse 3 hrs
Current approaches to the prevention and treatment of drug and alcohol abuse. Consideration of the physiological, psychological and social impact of substance abuse on the individual, the family, and the community. The role of the social worker in prevention and treatment.
Prereq: social work major or minor or department permission

SWRK435 Group Work with Children and Families 3 hrs
Social group work theory and practice as a relevant way to work with children and families. Group process as it occurs in natural groups and the effect of this process on individual behavior. Techniques that can be built into the group to effect client change.
Prereq: social work major or minor or department permission

SWRK440 Issues in Mental Health Practice 3 hrs
Issues in mental health practice with emphasis on deinstitutionalization, community mental health and the role of the entry-level social worker.
Prereq: social work major or minor or department permission

SWRK443 Assessment Issues in Domestic Violence 3 hrs
This course will explore violence in the home, focusing primarily on spouse or partner abuse and touching on elder abuse, sexual abuse and child abuse and neglect. Students will learn how to make domestic violence social work assessments.
Prereq: social work major or minor or department permission

SWRK457 Separation, Loss and Grief 1 hr
Separation, loss and grief as integral aspects of the human experience. Practice issues and applications addressing the impact of loss, separation and grief on client and societal systems.
Prereq: social work major or minor or department permission

SWRK460 The Law and Social Work with the Family 3 hrs
Social workers and lawyers frequently find themselves working together dealing with issues and problems involving individuals and families, such as in cases of divorce, child abuse and neglect, child custody, delinquency and mental health. Legal and social work perspectives in terms of client rights, needs and professional goals. Social work practice in the family court arena.
Prereq: social work major or minor or department permission

SWRK462 Practice with Lesbian, Gay, Bisexual and Transgender Persons 3 hrs
This course exposes students to a wide array of life experiences of lesbian, gay, bi-attractional and transgender persons by listening to their own words — spoken, written, on film and through personal interviews. It develops a deeper contextual knowledge and understanding of life courses taken by sexual minorities.

SWRK463 Social Work Practice with Legal Offenders 3 hrs
Professional roles and appropriate practice skills utilized by social workers and allied professionals in working with legal offenders.
Prereq: social work major or minor or department permission

SWRK467 Crisis Intervention 2 hrs
Systems in crisis including different types of crises, indications of a system in crisis and crisis intervention strategies.
Prereq: social work major or minor or department permission

SWRK477/478/479 Special Topics 1/2/3 hrs
Specialized topics integral to contemporary social work practice. Social work faculty members will select contemporary topics that are different from existing social work courses. Since topics change, a student may take the course more than once.
Prereq: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

SWRK488 Field Experience I 6 hrs
Field experience designed to meet the learning needs of students and the standards of professional social work education. Professional standards are fixed; however, learning needs of students may vary. The field placement agency, in consultation with the Social Work Department, provides learning experiences and supervision at the senior level. Open only to social work majors with senior standing and an overall GPA of 2.3 or better in social work courses. Student may not be on academic probation.
Prereq: SWRK317, SWRK388 and department permission; social work majors only;
Coreq: SWRK408

SWRK489 Field Experience II 6 hrs
A continuation of SWRK488. A student must receive a C or better in SWRK488, have an overall GPA of 2.3 or better in social work courses, and not be on academic probation. Open to majors only. Must be taken concurrently with SWRK409.
Prereq: SWRK488; social work majors only

SWRK490 Senior Thesis Seminar 3 hrs
This is the capstone course for students completing the honors program in social work. A senior thesis or project is completed in consultation with the faculty member.
Prereq: social work majors only; member of Honors College

SWRK497/498/499 Independent Study 1/2/3 hrs
Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student.
Prereq: department permission

Technology Education Courses (TEDU)

TEDU103 Structures and Design in Technology 3 hrs
The application of design elements, principles and procedures in the development of solutions to structural problems in technology. Considers human and environmental factors in design solutions. Illustration and description of structures, shapes and forms used in those solutions.

TEDU105 History of Industrial Technology 3 hrs
An introduction to the history of industrial technology. The development of industry and its impact on the other arts and culture in general. Basic principles of design in industrial and home arts, and the eotechnic, paleotechnic, neotechnic and atomic periods of technology.

TEDU106 Processing Technology 3 hrs
An introduction to tools, materials, and processes and their application to discrete and integrated systems of technology. Interrelationships between humans and machines will be studied to develop the student's ability to transfer knowledge of processes from one environment to the other.

TEDU114 Information and Control Technology 3 hrs
Access, manage and control information and technology through the application of technological systems. Design and construct models, devices and mechanisms that will process information and control technology through the use of machines and humans.

TEDU118 Energy and Transportation Technology 3 hrs
Forms, sources, and uses of energy and transportation for applications to technology. Description of past, present, and future systems that transform, transmit, store, control and/or utilize energy and/or transportation. Considers conservation issues.

TEDU152 Arts and Crafts 3 hrs
Experience in design and use of a wide variety of craft materials. A vocational and recreational use of craft media.

TEDU177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TEDU246 Safety in Technology and Vocational Education 2 hrs
Safety, health and environmental factors and their implications for technology and vocational educators, students, laboratories and instructional programs.

TEDU250 Foundations of Technology and Vocational Education 3 hrs
An introduction to the foundations and implementation of technology education and vocational education. Past, present and future developments in the profession will be studied through lectures, discussions, seminars, micro-teaching, school visitations and prestudent teaching activities.

TEDU253 Technology Education for Children 3 hrs
Content and methods which enable the elementary teacher to assist children in learning about the concepts, processes, systems and impacts of technology. Individual and group laboratory activities involve applications of technology with other subject areas through problem solving experiences.

TEDU277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TEDU350 Curriculum in Technology and Vocational Education 3 hrs
Curriculum bases, the derivation of content, the formulation of objectives, the selection and organization of learning activities and the selection and development of procedures for evaluation of technology and vocational education students and programs.
Prereq: TEDU250

TEDU354 Experiences in Technology for Children 2 hrs
Laboratory experiences in the use of materials, tools, processes and products of industry as utilized in the elementary and middle school. Emphasis is on individual and group learning situations relevant to integrated curriculum activities.
Prereq: TEDU253

TEDU355 Seminar in Technology for the Elementary School 2 hrs
Practical experiences in integrating concepts of technology with existing elementary and special education curricula. Students will design, conduct and evaluate manipulative activities for and with children.
Prereq: TEDU354

TEDU358 Tools and Materials 3 hrs
Experiences in the use of selected tools, machines and materials following contemporary therapeutic practices in occupational therapy and related professions. Lecture: two hours per week. Laboratory: two hours per week.

TEDU377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TEDU387 Cooperative Education in Technology Education 3 hrs
Technology education majors will be placed on a job that relates to their primary area of study for one semester. During this period regular employee benefits may be received. *Offered on a credit/no-credit basis. Credit applicable to a major in technology education only.*
Prereq: department permission

TEDU450 Solving Technological Problems 3 hrs
A capstone experience in the technology component of the technology education curriculum. Student applies problem-solving techniques to arrive at the solution to a technological problem.
Prereq: TEDU350, senior standing and department permission

TEDU452 Principles of Vocational Education 3 hrs
Concepts and principles of vocational education; current issues in vocational education in Michigan.
Prereq: TEDU350

TEDU460 Methods of Teaching Technology and Vocational Education 3 hrs
Involvement in solving problems related to classroom activities in technology and vocational education programs. Emphasis on the implementation of classroom methods, including the selection, organization and evaluation of activities. Examines the relationship between principles of effective learning and various methods of organizing technology and vocational education content.
Prereq: TEDU350 and junior or senior standing

TEDU477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TEDU487 Cooperative Education in Technology Education 3 hrs
The second in a two-course sequence for technology education majors. The students will be placed on a job that relates to their primary area of study for one semester. Regular employee benefits may be received. *Credit applicable to a major in technology education only. Offered on a credit/no-credit basis.*
Prereq: TEDU387 and department permission

TEDU497/498/499 Directed Study—Technology Education 1/2/3 hrs
Available to select students who have demonstrated ability to profit from a directed study project. Intensive study of a problem appropriate to the student's area of concentration. Enrollment and selection of a project proposal must be approved by the department adviser-chair.
Prereq: department permission

Therapeutic Recreation Courses (THRC)

THRC100 Orientation to Therapeutic Recreation 3 hrs
This course is designed as an introduction to the field of therapeutic recreation. The student will have the opportunity to integrate understanding of leisure theory, history, professional development, service models, leadership theory and techniques applicable to people with disabilities.

THRC177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

THRC180 Activity Analysis and Adaption 2 hrs
Develops the skills necessary to analyze activities to find inherent characteristics that contribute to program objectives for special populations. Components of activity analysis (physical, cognitive, affective and social/interactional skills) are studied in detail. Lecture, discussion and experiential learning.

THRC200 Recreation for Persons with Disabilities 3 hrs
This course is designed to familiarize students with the nature and scope of recreation for people with disabilities. The course will explore social, environmental and psychosocial issues that influence the leisure lifestyle of people with disabilities. Other topics include: barriers to leisure participation, activity adaptation and characteristics of diagnostic groups.

THRC210 Camping for Special Populations 2 hrs
This course will provide practical experience for the student interested in working as a counselor at a camp for special populations. It will also provide experience in setting up a camp since the student

will be responsible for the development of all materials and programming for a weekend camp.
Prereq: THRC200 or SPGN251

THRC250/251/252/253 Fieldwork in Recreation/Therapeutic Recreation 1 hr each
An introductory course in fieldwork. Students select a site for recreation leadership within a community or clinical setting. Students spend 60 hours on-site and participate in five classroom meetings.
Prereq: THRC100

THRC277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

THRC290 Quality Improvement: Research Methods in Health Care 3 hrs
This course is designed to prepare the entry-level health care practitioner with a knowledge of continuous quality improvement techniques which focus on process and outcome measures relevant to individual disciplines. The student will develop an understanding of applied research methodology and its application to CQI development and evaluation.

THRC300 Principles of Therapeutic Recreation 3 hrs
Principles of Therapeutic Recreation is an introductory course designed to familiarize students with the diverse nature and scope of the therapeutic recreation profession. The course content includes an analysis of: historical and philosophical influences, service models, service settings, practice standards, ethics, quality improvement, credentialing, consulting and terminology.
Prereq: THRC100 and THRC200

THRC310 Leisure and Aging 3 hrs
This course will examine the physical, psychological and affective characteristics of aging, implications of leisure and retirement, and recreational services provided in community and institutional settings.

THRC320 Leisure Education 3 hrs
Concepts and techniques of leisure education for use with all populations. Leisure awareness, social interaction skills, leisure activity skills and leisure resources. Educates the student as a provider of leisure services. Lecture, speakers, readings and participation.

THRC330 Therapeutic Recreation: Substance Abuse 3 hrs
The use of leisure and recreation in the prevention and/or rehabilitation of chemical dependency. Skill development in areas of leisure education, group dynamics, facilitation techniques, communication, values clarification, decision-making, games and sports, new games, socialization and outdoor/nature techniques, and family leisure education. Lectures, discussions and experiential learning.
Prereq: THRC200

THRC340 Therapeutic Recreation Processes I 3 hrs
Introduction to specific techniques used in therapeutic recreation, including counseling theory, psychotherapies, medical terminology and transfers and lifts. Lecture, speakers, assessments and 30 hours of fieldwork.
Prereq: THRC200

THRC377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

THRC400 Therapeutic Recreation Process II 3 hrs
This course is designed to familiarize students with best-practice interventions used in the treatment/program planning process, medical record documentation and evaluation techniques. Emphasis will be placed on exploring established activity-based protocols and potentially new protocols applicable to rehabilitation and health promotion settings.
Prereq: THRC100, THRC200, THRC300, THRC340; or department permission

THRC410 Professional Preparation 2 hrs
Involves self-appraisal as a recreation professional; professional ethics; writing practicum and career goals; developing a chronological and functional résumé; writing letter of inquiry and cover letter; information on job placement within recreation services; NRPA registration/certification; applying for graduate school; and the job interview process. Lecture, self-appraisal, formal videotaped interview with a recreation professional.

THRC430 Issues in Therapeutic Recreation 3 hrs
This required course is designed for the senior therapeutic recreation major. Students will gain an awareness of the current issues affecting the practice of therapeutic recreation.
Prereq: THRC200/300

THRC449 Therapeutic Recreation Practicum 8 hrs
A full-time, 15-week, 600-hour experience in an approved hospital, outpatient or community setting under direction of a certified therapeutic recreation specialist and University supervisor. Leadership, supervisory and administrative experience of a practical nature.
Prereq: candidate status for a minimum of one semester prior to application for practicum; completion of 90 percent of all academic courses including THRC100, THRC200, THRC250, THRC260, THRC300, THRC340, THRC360, THRC400, THRC460; completion of 250 hours of fieldwork; grade point average of 2.5 overall and 2.75 in all major classes

THRC477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

THRC481 Adapted Aquatics 2 hrs
Aquatic instructional techniques in working with special populations including physically disabled, developmentally disabled, emotionally impaired and the aged. Lectures, films, swimming skills, adaptations of swimming skills and 20 hours of fieldwork.

THRC497/498/499 Directed Study 1/2/3 hrs
An opportunity for directed study in areas not covered in other course offerings, or greater depth of study in areas of continued interest for the student. Students will be assigned to select faculty members for direction, consultation, and evaluation of the completed study or project. Open only to department majors and minors who have attained junior standing, with a GPA of 3.0 or above and who have completed the appropriate background courses.

THRC510 Leisure and Aging 3 hrs
An elective course for Recreation majors, Gerontology minors, and the Graduate Gerontology Certificate program. Course will provide an overview of physical, psychological, and affective characteristics of older adults; implications of leisure and retirement; and recreation services provided in institutional and community settings.

TESOL Courses (TSLN)

TSLN330 TESOL Methodology: Literacy 3 hrs
This course teaches recent literacy theory and its application to pedagogy, including research-based concepts of literacy and their relationship to practical aspects of language acquisition. The course builds teacher candidates' understanding of language and literacy development with an emphasis on teaching English to speakers of other languages.
Prereq: LNGE325

TSLN332 Methodology: Listening and Speaking 3 hrs
This course connects recent language theory and research-based concepts of the teaching of oral/aural language to practical aspects of language acquisition and teaching. The course builds teacher candidates' understanding of oral/aural language development with an emphasis on teaching English to speakers of other languages.
Prereq: LNGE325

TSLN410 TESOL Methodology: Content-Based Approaches 3 hrs
This course focuses on applying principles of English language instruction within content courses. Emphasis is placed on teaching students to use research-based methods of teaching language components (i.e. grammar, vocabulary and pronunciation) and integrating the 4-skills (listening, speaking, reading and writing) with teaching specific content (e.g. science, social studies).
Prereq: TSLN330 and TSLN332

TSLN420 SLA Testing and Assessment 3 hrs
This course teaches students the basics of testing English speakers of other languages (ESOL) based on current second language acquisition theory, reviews existing tests used with ESOL students, develops tests and alternative assessments for ESOL students, and practices administering ESOL test used in public schools.
Prereq: TSLN330 and TSLN332
Concurrent prereq: TSLN410

TSLN477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TSLN497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual research basis in areas not covered in formal course work.
Prereq: department permission

Technology Management Courses (TM)

TM130 Introduction to Technology Management 3 hrs
This course will provide the student with an understanding of technology management issues and introduce them to the necessary aspects required to manage a technological enterprise.

TM177/178/179 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TM212 The Management of Technological Change 3 hrs
The implementation of new technology within organizations often requires substantial changes in organizational, group and individual work processes. This course will present change frameworks that enhance the effectiveness and efficiency of technology change and implementation. It will integrate materials from several disciplines including organizational development, management, industrial engineering and organizational science.

TM277/278/279 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TM285/286/287 Pre-Professional Internship 1/2/3 hrs
One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities.
Prereq: department permission

TM308 Seminar in Technological Impacts 3 hrs
An undergraduate-level introduction to technology assessment. Development of skills related to forecasting technological inventions and assessing their effect if adopted by society.

TM311 Information Technology Management and Organizations 3 hrs
This course will introduce the student to the varying aspects of information technology management in organizations. Emphasis will be placed on the technical and organizational foundations of information systems along with contemporary approaches to building and managing information systems and their respective support systems.
Prereq: proficiency exam or junior status

TM314 A Socio-Technical Systems Approach to Process Improvement 3 hrs
The purpose of this course is to describe an approach to process improvement that integrates technical aspects of industrial engineering with social psychological dimensions of work processes. The course will delineate ideas for strategically incorporating technology levers into plans for improving work processes on an individual and work group level.
Prereq/Coreq: TM130

TM377/378/379 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TM387 Co-operative Education 3 hrs

TM415 Senior Seminar in Technology Management 3 hrs
This course will allow students to synthesize the structure and procedures of strategic management and project management. The course will integrate the ideas and information presented in other courses within the technology management concentration core. Students will demonstrate their ability to integrate information ascertained from previous classes within a capstone project.
Prereq: TM130

TM477/478/479 Special Topics 1/2/3 hrs
An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.
Prereq: department permission

TM487 Co-operative Education 3 hrs

TM497/498/499 Independent Study 1/2/3 hrs
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: department permission

Division of Academic Affairs Courses (UNIV)

UNIV100/101 Introduction to the University

1/3 hrs

This course facilitates students' successful transition to college. Students learn to navigate the University system and to identify and develop strategies for enhancing their learning. Through academically-engaging activities that connect the classroom to the EMU community, students learn how to live and learn in a multicultural environment.

UNIV177/178/179 Special Topics

1/3 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

UNIV277/278 Special Topics

1/2 hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied.

UNIV279 Special Topics: Prior Learning and Portfolio Development

3 hrs

Course goals are to assist students in clarifying educational, career and personal goals by developing a portfolio that documents experience and identifies learning for evaluation by appropriate departmental faculty for possible award of degree credit.

Prereq: department permission

Women's and Gender Studies Courses (WGST)

WGST177/178/179 Special Topics

1/2/3 hrs

Different subject matter will be taught each semester offered, including interdisciplinary courses in women and gender studies. Students may take these courses more than once provided the subject matter is different.

Prereq: department permission

WGST200 Introduction to Women's Studies

3 hrs

This course provides an overview of the main issues confronting women in the United States today. Topics covered may include patriarchy and oppression, media images, violence, work, sexuality, feminism and commonalities and differences of women from different racial/ethnic and class backgrounds.

WGST205/BMMT205

Women in Business

3 hrs

Social and business conditions that support the entry of women to executive positions in business; career opportunities at the professional and executive levels of business.

WGST208/ANTH208/SOCL208 Minority

Women in the United States

3 hrs

This course surveys the situation of and the conditions that affect the lives of four groups of minority women in the United States who are from diverse cross-cultural backgrounds: Black, Asian-American, Latin-American and Native American. It focuses on the contemporary situation of these women and compares the four groups in terms of demographics, economic and occupational situations, education, family lives and relationship to the feminist movement.

Prereq: SOCL105 or ANTH135

WGST226/PHIL226 Feminist Theory

3 hrs

A consideration of philosophical issues concerning the nature and status of women. Readings from both traditional and contemporary sources. Topics may include scientific and religious views, the ideal society and women's place in it, varieties of feminism, views on sexuality, family and reproduction, and work and the economy.

WGST230 Conversations with Girls

4 hrs

This course provides practice-based theory and methodology about educational mentoring relationships. Students are required to apply theory and methodology learned in the classroom to work with a community agency that is directly relevant to the focus of the course.

WGST242/PSY242

Psychology of Women

3 hrs

Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women.

Prereq: PSY101 or PSY102

WGST243/AAS243/PLSC243 Black

Women: Politics and Racism

3 hrs

This course examines American politics as it relates to African American women. The course analyzes ways in which political issues affect black women differently than African American men, white men and white women. Considerable attention is given to the definition of the political realm as opposed to the nonpolitical realm when discussing groups traditionally marginalized or excluded from political life.

WGST260/CTAC260

Gender Communication

3 hrs

Exploration of the multifaceted ways communication, culture, and gender are interconnected and the influences of each. Critical analysis of gender communications "differences" as they are influenced by culture and our everyday communication.

WGST269/ZOOL269 Biology of

Sex and Gender

3 hrs

Lectures will address the biology of sex and gender from early stages of development throughout life. Anatomy and physiology of gender and behaviors in humans and other animals will be discussed. Topics include: sexual differentiation, puberty, reproductive patterns and the effects of aging on the sexual response.

Prereq: BIOL105, BIOL110 or ZOOL201

WGST277/278/279 Special Topics

1/2/3 hrs

Different subject matter will be taught each semester offered, including interdisciplinary courses in women and gender studies. Students may take these courses more than once provided the subject matter is different.

Prereq: department permission

WGST321/CLAS321/HIST321

Women and Gender in the Ancient World

3 hrs

An investigation of life for women in antiquity, focusing on the sex-gender system of Greek and Roman societies. Literary, inscriptional and other evidence will be studied to disclose the classical roots of western beliefs and attitudes about women.

Prereq: one 100-level course in history

WGST328/ECON328

Economics of Women

3 hrs

The changing economic role of women in the labor force. Analysis of policies affecting earnings, employment, and work and family issues in traditional and nontraditional occupations. Includes some international comparisons.

Prereq: one 100-, 200- or 300-level course in economics

WGST335/HIST335 History of

Women in Europe

3 hrs

A study of the history of women and views of women in western society from the 18th century to the present. Emphasizes the struggles, setbacks and achievements of the women's movements in the context of modern European history.

Prereq: one course in history

WGST336/HIST336 History of Women

in the United States and Great

Britain, 1800 to the Present

3 hrs

A comparative study of the history of women in the United States and Great Britain. Examines the ideology of the nature and role of women, the history of women's lives, the impact of industrialization and the feminist movements of the 19th and 20th centuries.

Prereq: one course in history or department permission

WGST338/CRM338/SOCL338

Women, Crime and Justice

3 hrs

This course will offer a critical analysis of gender and criminal justice as it relates to women as victims, offenders and agents of the criminal justice system. Additionally, the social conditions of criminality, intervention strategies, as well as, social action and criminal justice policy reform will be examined.

WGST344/SOCL344

Sociology of Gender

3 hrs

Analysis of past, present and future sex roles; the changing roles of women and men, and the conflicts and consequences of these changes on marriage and family systems in the United States.

Prereq: SOCL105 and sophomore standing

WGST355/ANTH355
Anthropology of Women 3 hrs
The role of women in diverse cultural contexts. Theories dealing with the position of women. Life histories of women constitute the basic reading in this course.
Prereq: ANTH135 or department permission

WGST362/AAS362/PLSC362
Black Women: Religion and Sexism 3 hrs
An introduction to the social and political role of Black women in African American religious institutions. Particular attention will be placed on how African American religion has limited the power of women. Additionally, the course will examine the historical evolution of the various major black denominations in America and their political and social roles in African American communities.

WGST365/PLSC365
Women and Politics 3 hrs
A study of the role of women in American politics as voters, activists and candidates, with consideration of how the political behavior of women relates to their economic, social and religious roles. Comparisons are made with select European and Asian political systems.
Prereq: PLSC112/113

WGST377/378/379 **Special Topics** 1/2/3 hrs
Different subject matter will be taught each semester offered, including interdisciplinary courses in women and gender studies. Students may take these courses more than once provided the subject matter is different, but no more than two such courses may be counted toward the minor in women and gender studies.
Prereq: department permission

WGST387 **Cooperative Education**
in Women's Studies 3 hrs
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.
Prereq: department permission

WGST400 **Capstone Seminar** 3 hrs
A culminating experience designed to enable students to understand, demonstrate and improve skills acquired as majors or minors in the program, and to facilitate the integration of interdisciplinary knowledge.
Prereq: WGST200 and WGST226/PHIL226

WGST405/PHED405
Women in Sports 3 hrs
Patterns, problems and conditions associated with women's sports involvement in selected world cultures; the sportswoman in American society.

WGST413/SWRK413
Women and Aging 3 hrs
Designed to provide social work, women's studies, and gerontology students with the skills and sensitivity to understand the issues, needs, and positive attributes of women as they grow older. Students will examine the lives of women in special groups, such as older minority women, caregivers, widows and institutionalized elderly women. Students will

learn skills to provide effective services to older women in a variety of human service settings.
Prereq: social work major or minor or department permission

WGST415/HIST415 **Sexual Communities**
in American History 3 hrs
This class addresses the history of sexuality and the development of communities based on sexual identity in the United States. Topics include the origins of scientific theories of sexuality, the development of social movements around sexual issues and social responses to sexual minorities.

WGST420/STS420 **Women**
and Technology 3 hrs
An interdisciplinary course designed to familiarize students with various concepts of technology, technological change and technological society; probe the problems and advantages women face in technological society or technology-based professions; explore women's roles in several specific technology professions.

WGST426/PHIL426 **Topics in**
Gender and Philosophy 3 hrs
An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory.
Prereq: two courses in philosophy or instructor permission

WGST436/ART436 **Women in Art** 3 hrs
A survey of the contributions of female artists in the history of art. Discussions will include the history of women as patrons of the arts, and the uses of the female image in art.
Prereq: ART108 or department permission

WGST443/LITR443
Women in Literature 3 hrs
A study of women and their experiences as described in literature.
Prereq: two courses in literature

WGST477/478/479 **Special Topics** 1/2/3 hrs
Different subject matter will be taught each semester offered, including interdisciplinary courses in women and gender studies. Students may take these courses more than once provided the subject matter is different.
Prereq: department permission

WGST487 **Cooperative**
Education in Women's Studies 3 hrs
This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations.
Prereq: department permission

WGST497/498/499 **Independent Study** 1/2/3 hrs
Advanced study on an individual basis in areas in which the program does not offer formal courses. These courses are restricted to juniors and seniors.
Prereq: department permission

Zoology Courses (ZOOL)

ZOOL140 **Biology of Animals** 4 hrs
With three hours of lecture and three hours of combined recitation/demonstration and laboratory this course will focus on the biology and impact of the diverse animal groups in their interaction with humans. Diseases caused, new medical contributions, economic costs and benefits and ecological roles of repressive animals will be studied.

ZOOL177/178/179 **Special Topics** 1/2/3 hrs
An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

ZOOL201 **Human Anatomy**
and Physiology I 3 hrs
An intensive lecture and laboratory course investigating human anatomy and physiology with emphasis on both normal and pathological conditions, in a two-semester sequence. First semester will cover the basic structure and functions of the integumentary, muscular, skeletal, nervous and endocrine systems.
Prereq: High school Biology.

ZOOL202 **Human Anatomy**
and Physiology II 3 hrs
An intensive lecture and laboratory course investigating human anatomy and physiology with emphasis on both normal and pathological conditions, in a two-semester sequence. The second semester will cover circulation, metabolism, the cardiovascular, digestive, excretory and reproductive systems, and the integration of the systems of the body.
Prereq: ZOOL201; and BIOL105 or CHEM120

ZOOL246 **Wildlife of Michigan** 3 hrs
A course emphasizing the ecology, behavior, conservation and management of amphibians, reptiles, birds and mammals that life in Michigan. Students also will learn to identify commons species based on appearance, call or songs and tracks.
Prereq: BIOL105 or BIOL120

ZOOL269/WGST269
Biology of Sex and Gender 3 hrs
Lectures will address the biology of sex and gender from early stages of development throughout life. Anatomy and physiology of gender and behaviors in humans and other animals will be discussed. Topics include: sexual differentiation, puberty, reproductive patterns and the effects of aging on the sexual response.
Prereq: BIOL105, BIOL110 or ZOOL201

ZOOL277/278/279 **Special Topics** 1/2/3 hrs
An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission

- ZOOL300 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, with emphasis on their natural history, ecology and economic importance.
Prereq: BIOL120 or ZOOL140
- ZOOL310 Natural History of Vertebrates** 3 hrs
A survey of vertebrates, emphasizing their adaptations and their natural history. Laboratory work will stress the taxonomic classification, identification and distribution of local and other forms. Fieldwork will emphasize accurate observation and permanent recording of original data on local species.
Prereq: BIOL120 or ZOOL140
- ZOOL323 Animal Embryology** 3 hrs
Fundamental facts and principles of the reproduction and development of animals with laboratory studies of the frog, chicken, pig and other forms.
Prereq: BIOL120 or ZOOL140
- ZOOL326 Human Physiology** 3 hrs
A study of the functioning of the human body. Lecture, laboratory and demonstration.
Prereq: BIOL105 or BIOL120 or ZOOL140
- ZOOL377/378/379 Special Topics** 1/2/3 hrs
An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission
- ZOOL387 Cooperative Education in Zoology** 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 zoology or technology. The program consists of two work experiences (ZOOL387/487) alternating with full-time attendance at the University. *Admittance to program by application only. Graded on a credit/no-credit basis.*
Prereq: junior standing
- ZOOL404 Mammalian Histology** 3 hrs
A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues.
Prereq: BIOL120 or ZOOL140
- ZOOL417 Neuroanatomy** 3 hrs
A lecture/laboratory course concerned with the study of the human nervous system, lesions and resulting disabilities.
Prereq: ZOOL202 or ZOOL326.
- ZOOL421 Entomology** 3 hrs
A survey of the world of insects, their structure, function, behavior and ecology. The identification and classification of local insects will be stressed. A student field project will be required.
Prereq: BIOL120 or ZOOL140
- ZOOL422 Ichthyology** 3 hrs
A study 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.
Prereq: BIOL120 or ZOOL140
- ZOOL425 Ornithology** 3 hrs
A course in bird biology for the secondary teacher and students with advanced interest in biology. Field identification and census methods will be used to introduce the study of bird populations, behavior and ecology. A survey of major North American bird families will be made in the laboratory. A student field project will be required.
Prereq: BIOL120 or ZOOL140
- ZOOL431 Comparative Anatomy of Vertebrates** 4 hrs
The anatomy of the vertebrate organ systems is studied on a comparative basis, which emphasizes the evolutionary development of the groups. Laboratory work includes detailed dissection of a shark and cat. Three one-hour lectures and two two-hour laboratory periods per week.
Prereq: BIOL120 or ZOOL140
- ZOOL439 Physiological Ecology** 3 hrs
A lecture, laboratory and discussion course covering thermoregulation, metabolic rate, torpor, water flux, and specific adaptations for life in the cold, deserts, high altitude and great depths. Laboratory work emphasizes computerized data acquisition.
Prereq: BIOL305 or BIOL310
- ZOOL445 Concepts in Animal Physiology** 3 hrs
Central themes in physiology (circulation, metabolism, water balance, temperature regulation, communication, movement, reproduction) will be studied. Class activities will examine strategies used by vertebrates and invertebrates with regard to these physiological concepts. Current literature, experiments and case studies will be used to demonstrate the diverse physiological responses of animals.
Prereq: BIOL305
- ZOOL462 Parasitology** 3 hrs
A survey of animal parasites that affect other animals including the human. Lecture and laboratory.
Prereq: BIOL120 or ZOOL140
- ZOOL474 Herpetology** 3 hrs
Taxonomy, distribution, life histories, behavior and ecology of amphibians and reptiles with an emphasis on local species. Species will be studied in the field and laboratory.
Prereq: BIOL120 or ZOOL140
- ZOOL477/478/479 Special Topics** 1/2/3 hrs
An examination of zoology topics not covered in other departmental offerings. Students may elect this course more than once, provided different topics are studied.
Prereq: department permission
- ZOOL482 Aquatic Entomology** 3 hrs
The study of aquatic insect families and their general ecology, life histories and taxonomy. A collection of the common aquatic insect families of the area is required. *Counts as a taxonomic field course.*
Prereq: BIOL120 or ZOOL140
- ZOOL485 Mammalogy** 3 hrs
Some aspects of the biology of mammals: origins and evolution, anatomy, classification, adaptations and zoogeography. Natural history and aspects of their ecology are studied in the field. A collection of study specimens of different species is required of each student.
Prereq: BIOL120 or ZOOL140
- ZOOL487 Cooperative Education in Zoology** 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 zoology or technology. The program consists of two work experiences (ZOOL387/487) alternating with full-time attendance at the University. *Admittance to program by application only. Graded on a credit/no-credit basis.*
Prereq: ZOOL387
- ZOOL497/498/499 Special Problems in Zoology** 1/2/3 hrs
Individual work in some area of zoology under direction of a staff member. Preliminary draft of proposed study must be approved by the department prior to enrollment. May be selected more than once, after resubmission and approval.
Prereq: department permission

Indices

Sections

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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:

	PREFIX
Academic Affairs Division.....	UNIV
Honors.....	HNRS
Study Abroad.....	SABR
College of Arts and Sciences.....	CASI
African American Studies.....	AAS
Art.....	ART
Biology.....	BIOL
Botany.....	BOTN
Elementary Science.....	ESCI
Microbiology.....	MICR
Zoology.....	ZOOL
Chemistry.....	CHEM
Communication and Theatre Arts	
Activity.....	CTAA
Communication.....	CTAC
Interpretation/Performance Studies.....	CTAO
Theatre and Educational Drama.....	CTAR
Fundamentals of Speech.....	CTAS
Telecommunications and Film.....	CTAT
Computer Science.....	COSC
Economics.....	ECON
English Language and Literature	
Creative Writing.....	CRTW
English Composition.....	ENGL
Journalism and Public Relations.....	JRNL
Linguistics.....	LING
Literature.....	LITR
Foreign Language and Bilingual Studies	
Classics.....	CLAS
English for International Students.....	ESLN
French.....	FRNH
General Foreign Language and Bilingual-Bicultural Education	FLAN
German.....	GERN
Greek.....	GREK
Japanese.....	JPNE
Language.....	LNGE
Latin.....	LATN
Spanish.....	SPNH
Teaching English as a Second Language (TESOL).....	TSLN
Geography and Geology	
Earth System Science.....	ESSC
Geography.....	GEOG
Geology.....	ESCI
Historic Preservation.....	GHPR
Urban and Regional Planning.....	GPLN
History and Philosophy	
History.....	HIST
Philosophy.....	PHIL
Mathematics.....	MATH
Music and Dance	
Dance.....	DANC
Music.....	MUSC
Applied Music has a prefix for each instrument. Refer to the class schedule book for the codes.	
Physics and Astronomy	
Astronomy.....	ASTR
Physics.....	PHY
Physical Science.....	PSCI
Political Science.....	PLSC
Psychology.....	PSY
Sociology, Anthropology and Criminology	
Anthropology.....	ANTH
Criminology.....	CRM
Sociology.....	SOCL
Women's and Gender Studies.....	WGST

College of Business.....	COB
Accounting and Finance	
Accounting.....	ACC
Decision Science.....	DS
Finance.....	FIN
Computer Information Systems.....	IS
Production/Operations Management.....	POM
Management.....	MGMT
Marketing.....	MKTG
International Business.....	IB
Law.....	LAW
Supply Chain Management.....	SCM

College of Education

Leadership and Counseling	
Counseling.....	COUN
Educational Leadership.....	EDLD
Special Education	
General.....	SPGN
Cognitive Impairment.....	SPCI
Emotional Impairment.....	SPEI
Hearing Impairment.....	SPHI
Learning Disabilities.....	SPLI
Physical and Health Impairment.....	SPPI
Speech/Language Pathology.....	SPSI
Visual Impairment.....	SPVI
Student Teaching.....	EDUC
Teacher Education	
Curriculum.....	CURR
Early Childhood Education.....	ECE
Educational Media.....	EDMD
Educational Media and Technology.....	EDMT
Educational Psychology.....	EDPS
Educational Technology.....	EDTC
Field Experience.....	FETE
Reading.....	RDNG
Social Foundations.....	SOFD

College of Health and Human Services..... IHHS

Health Promotion and Human Performance	
Athletics.....	ATHL
Athletic Training.....	ATTR
Health Education.....	HLED
Physical Education.....	PHED
Physical Education Activity — General.....	PEGN
Recreation Courses.....	RECR
Exercise Science and Athletic Training.....	SPMD
Health Sciences.....	AHPR
Clinical Laboratory Sciences.....	CLSC
Human, Environmental and Consumer Resources.....	HECR
Health Administration.....	HLAD
Dietetics.....	DTC
Occupational Therapy.....	OCTH
Therapeutic Recreation.....	THRC
Nursing.....	NURS
Social Work.....	SWRK
Gerontology.....	GERT

College of Technology..... COT

Engineering Technology.....	SET
Computer Aided Design/Manufacturing.....	CADM
Computer Engineering Technology.....	CET
Construction Management.....	CNST
Creative Scientific Inquiry Experiences.....	CSIE
Electronic Engineering Technology.....	ELEC
Engineering Technology.....	ET
Facility Management.....	FMGT
Interior Design.....	IDE
Mechanical Engineering Technology.....	MET
Manufacturing.....	MFG
Polymers and Coatings.....	PC

Quality Technology	QUAL
Military Science and Leadership	MSL
Technology Studies	STS
Apparel, Textiles and Merchandising	ATM
Aviation Technology	AVT
Business Management Marketing and Technology	BMMT
Communication Technology	CMT
Career, Technical and Workforce Education	CTWE
Hotel and Restaurant Management	HRM
Information Assurance	IA
Industrial Distribution	ID
Information Security	ISEC
Legal Assistant (Paralegal)	LEGL
Network and Information Technology Studies	NITA
Public Safety	PS
School of Staff and Command	SSC
School of Technology Studies	STS
Technology Education	TEDU
Technology Management	TM

Policies Affecting You at EMU

In this section you will find the FERPA law, the Student Code of Conduct, the EMU Alcohol and Other Drug Policy, the Tobacco Use Policy, the Student Involuntary Administrative Withdrawal Policy, the Grade Grievance Procedures, Class Attendance Policy, the EMU Policy on Sexual Harassment and the Residence Hall Eligibility Policy.

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.

Undergraduate Policy on Probation/Dismissal/Readmission

If, at the end of any term of enrollment, an undergraduate's cumulative grade point average (GPA) falls below 2.0, having previously been at or above 2.0 (or if new to the University), that student will be placed on academic probation (PRB1). The student will then have three terms of enrollment (spring/summer count as one) to raise the cumulative GPA to 2.0 or higher. At any time that the student's cumulative GPA reaches 2.0, the student will be restored to good academic standing (GOOD). Unless the cumulative GPA has been raised to 2.0 by the end of the third term of probation (PRB3), the student will be subject to academic dismissal.

Exceptions to this policy are as follows:

1. Any student whose first term of probation is the result of a semester of all Es must earn better than 0.0 (all Es) in the first term of probation or face dismissal immediately.
2. Students who have been readmitted (READ is equivalent to PRB1) after a dismissal will be placed on PRB2 after their first term, if their cumulative GPA remains below 2.0. They will have two terms to raise their cumulative GPA average to 2.0 or they will face a second and final dismissal.
3. All initial dismissal actions are subject to appeal. Procedures and deadlines for such appeals will be included in notices of academic dismissal, sent to students at the conclusion of a term of enrollment. If an appeal is successful, the student will be reinstated, which means the dismissal does not count. Students who are reinstated after an appeal will be given one more term to raise the GPA to 2.0 or they will be dismissed.

Students dismissed from the University for the first time must remain away from Eastern Michigan University for one calendar year. They can then apply for readmission through the Academic Advising Center. Procedures and deadlines for readmission are available in the Academic Advising Center (301 Pierce Hall); contact the Assistant Director for Academic Actions. Students dismissed more than once (excluding reinstatement) are usually not eligible to return to the University. On occasion, when students have been away from

the University for at least 10 years, a request may be submitted, through the Assistant Director for Academic Actions, to the Academic Standards Committee, who will make the final decision in such a case.

While remaining out of the University due to a dismissal, students may choose to attend another institution. Certain rules apply to course work taken elsewhere. Refer to the repeat policy in the catalog and consult with Academic Records on transfer of courses.

While on academic probation, a student may meet with the Assistant Director for Academic Actions or any adviser in the Academic Advising Center. In addition, students may seek help in developing successful strategies for academic performance through the Holman Learning Center, the Counseling Services Center and the Career Services Center.

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 either complete a directory exclusion card or request directory exclusion through the touch tone registration system (734.487.3309) by Sept. 15. Cards can be picked up from University Publications, 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

Residence Hall Eligibility Policy

Policy Statement

All first year unmarried students shall be required to live in University residence halls, contingent on space availability. Sophomore students may be required to live on campus as well, space permitting. Exceptions may be granted to students who are:

- commuting from the permanent home of their parents/guardian;
- 21 years of age or older; or
- veterans who have served on active duty.

All students living in University residence halls assume responsibility for their own hours.

University Practice

Occupancy in a University residence hall is restricted to currently enrolled students at Eastern Michigan University. Occupants other than currently enrolled Eastern students are allowed on an exception basis. However, priority will be maintained for current Eastern students. Each resident is required to make application and sign a contract for the appropriate term. As such, the resident agrees to make the designated prepayment and agrees to the payment of fees as established for the term(s) of occupancy according to the current payment schedule. Additionally, the residents are responsible for compliance with all terms and conditions set forth in the contract and the Residence Hall Handbook.

Responsibility for Implementation

Housing management staff is responsible for implementing this policy and for granting waivers in a fair and consistent manner within policy guidelines.

Scope of Policy Coverage

This policy shall apply to first year and sophomore students.

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 statutes.

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 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 he/she 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 20 working days after the start of the next semester following the one in which the disputed grade was given.

Within 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 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 he/she 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 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 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/policies/chapter 6/6-2-4.html](http://www.emich.edu/policies/chapter%206/6-2-4.html) 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 Vice President for Academic Affairs. 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: www.emich.edu/sjs. For more information, visit Student Judicial Services in the Student Center or by phone at 734.487.2157.

Student Conduct Code and University Disciplinary Process

Section I: 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 take-home 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.

Note:

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.
- Note:**
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 and/or 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 nonlethal 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 extracurricular 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 reapply 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 enrolled students and two alternates; two full-time faculty members and one alternate; and two full-time members of the University community and one 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 members. During vacation periods or summer session, the University Judicial Board has the authority to convene a disciplinary hearing with only three 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 enrolled students; two full-time faculty members; and two full-time 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 other Judicial Appeals Board members, except that any

three Judicial Appeals Board members may hear the appeal if the Chief Justice can not be available within a reasonable time, not to exceed 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 through Four 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 adviser present who may participate in the proceedings. The adviser must be a member of the University community, and if the adviser 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(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

- 1 disciplinary case may be handled in one of the following two formats:
 - a. 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.
 - b. 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 pre-conference.
2. Pre-conference — At least two 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 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 adviser.

The purpose of the prehearing 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 adviser 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(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 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 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 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 working day following any presidential action. If the five 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 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 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 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 14 calendar days from the receipt of the written appeal.
- b. After the appeal is scheduled, Student Judicial Services will notify the student(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 rehearing 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 adviser is a student, he/she must be a student in good standing.
- c. The party who filed the appeal will be allowed 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 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 rehearing 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 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 working day following any presidential action. If the five 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 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 aca-

demical 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 subsections 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 nonmembers of the organization, without specific invitation, will be prohibited.
 - f. All organizations must provide, at no charge, an alternative nonalcoholic 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:
1. The incident will be referred to the respective Greek Judicial Board for hearing and original adjudication (i.e., sorority cases will be handled by the Panhellenic Council, fraternity cases will be heard by IFC and black Greek cases will be heard by the 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.
 2. 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.
 3. 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.
 4. In the event Student Judicial Services rejects the final decision, the Director will provide a written explanation of the rejection and a recommended alternative.
 5. 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 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 10 days. If the University fails to schedule the formal hearing within the 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 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 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.

Note:

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 subsections 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 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 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: Ombudsman; 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 age 21 years or older, consuming alcohol at University functions or while on University business, 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 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 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	Health Risks
Tobacco	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

<p>Alcohol (including beer, wine, liquor and mixed beverages such as wine-coolers, etc.)</p>	<p>Higher incidence of infertility, lower birth weights and smaller size of infants born to smokers</p>	<p>Physically and psychologically addictive.</p>
	<p>Physical and psychological dependence</p>	<p>Cocaine (including “Crack” cocaine)</p>
	<p>Physical and psychological dependence</p>	<p>Extremely addictive physically and psychologically</p>
	<p>Impaired driving ability</p>	<p>Sudden death one of four ways: collapsed respiratory system; arrested heartbeat; heart attack caused by narrowed blood vessels; or stroke caused by increased blood pressure</p>
	<p>Increased family violence — child abuse and spouse abuse is frequently associated with alcohol use and abuse.</p>	<p>Increased risk taking</p>
	<p>Increased chance of accidental death</p>	<p>Seizures</p>
	<p>High risk sexual behavior is more likely and more frequent when under the influence of alcohol</p>	<p>Sleeplessness</p>
	<p>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</p>	<p>Paranoia, delusions and hallucinations — Cocaine psychosis</p>
	<p>Mental health problems are more frequent in children raised in homes with heavy or frequent use of alcohol</p>	<p>Mood swings with violent behavior</p>
	<p>Irritation and inflammation of the esophagus, stomach, small intestines and pancreas</p>	<p>Malnutrition</p>
	<p>Liver disorders including alcoholic hepatitis and cirrhosis</p>	<p>Sexual dysfunction</p>
	<p>Nutritional deficiencies</p>	<p>Severe birth defects — physical damage and permanent emotional damage to babies born addicted to cocaine</p>
	<p>Cardiovascular disease and inflammation of the heart</p>	<p>Depressants (including tranquilizers, barbiturates, Methaqualone)</p>
	<p>Cancer of the tongue, mouth, throat, esophagus, liver and breast</p>	<p>Physically and psychologically addictive.</p>
	<p>Miscarriage and low birth rate</p>	<p>Extremely dangerous when mixed with alcohol — death</p>
	<p>Brain damage</p>	<p>Respiratory depression can result in death</p>
	<p>Sexual problems — increased desire but reduced ability to perform or reach climax for both men and women</p>	<p>Sleep disturbances</p>
	<p>Disintegration of family life</p>	<p>Severe withdrawal symptoms</p>
	<p>Behavior inconsistent with values (violence, personality changes, etc.)</p>	<p>Liver damage and impaired liver function</p>
<p>Marijuana (including hash, hash oil, Tetrahydrocannabinol, THC, Cannabis)</p>	<p>Diminished: short-term memory; motivation and cognition; coordination and concentration; oral communication; reaction time; and motivation to achieve</p>	<p>Birth defects including brain tumors</p>
	<p>Anxiety and panic reactions</p>	<p>Narcotics (including opium, morphine, Codeine, heroin, Methadone, Darvon and Demerol)</p>
	<p>Lung and respiratory system damage from exposure to smoke</p>	<p>Physically and psychologically addictive</p>
		<p>Painful withdrawal process</p>
		<p>Central nervous system depression</p>
		<p>Acquired Immune Deficiency Syndrome (AIDS) from sharing needles during use</p>
		<p>Seizures, nausea, and vomiting</p>
		<p>Hallucinations and unpredictable behavior</p>
		<p>Malnutrition</p>
		<p>Birth defects</p>

PCP (Phencyclidine) several days	<p>Paranoia — panic and fear of death lasting</p> <p>Irregular heartbeat and breathing</p> <p>Ongoing speech problems</p> <p>Depression and hallucinations</p> <p>Aggressive behavior</p> <p>Impaired memory and perception</p> <p>Unpredictable and sometimes intense mood disturbances and behavior changes</p>	<p>Individuals who use crystal meth also may have episodes of violent behavior, paranoia, anxiety, confusion and insomnia.</p> <p>Chronic use of the drug can result in inflammation of the heart lining.</p>
Anabolic Steroids	<p>Psychological and physical dependence</p> <p>Violent behavior</p> <p>Reversal of primary sex characteristics</p> <p>Premature hair loss</p> <p>Severe acne</p> <p>Liver, heart and kidney damage.</p> <p>Intense mood swings — paranoia — disorientation</p> <p>Birth defects</p>	<p>Psychologically and physically addictive</p> <p>Withdrawal symptoms include: tremors, rapid heartbeat, blood pressure drop, headache, mood swings, tension, nightmares, nausea, loss of sexual function and apathy</p> <p>Dangerous when combined with other tranquilizers or alcohol</p> <p>Lack of awareness of the dangers associated with these drugs since they are often prescribed by physicians</p> <p>Possible birth defects</p>
GHB (gammahydroxybutyrate)	<p>Fast-acting central nervous system depressant</p> <p>Colorless, odorless, liquid salty taste, powder and capsule form too</p> <p>Nausea, drowsiness, respiratory distress, seizures, amnesia</p> <p>Withdrawal symptoms</p>	
MDMA (Ecstasy)	<p>Neurotoxic</p> <p>A synthetic drug similar to stimulant amphetamine and hallucinogen mescaline</p> <p>Stimulant and psychedelic effects</p> <p>Taken orally, tablet form</p> <p>Significant increase in heart rate, blood pressure and body temperature</p> <p>High doses can lead to kidney and cardiovascular failure</p>	
Methamphetamine (crystal meth)	<p>Highly addictive synthetic (man-made) stimulant</p> <p>Can cause rapid heart rate, increased blood pressure, and damage to the small blood vessels in the brain- which can lead to stroke</p>	

Minor Tranquilizers
(including Xanax, Tranxene, Valium, Librium, Ativan, Serax, Miltown, Dalmane, Halcion, Restoril, etc.)

Assistance Available to Faculty, Staff and their Families at EMU
 Ceridian/LifeWorks.....877.234.5151
 www.lifeworks.com 800.999.3004

Assistance Available to Students at EMU
 University Health Services
 Counseling Services.....734.487.1118
 Health Education Program.....734.487.2226
 Department of Public Safety.....734.487.1222

Alcohol and Other Drug Abuse Treatment Services Available in Southeast Michigan
 Adrian
 Sage Outpatient Treatment.....517.265.0411

Ann Arbor/Ypsilanti Area
 St. Joseph's Mercy Hospital Chemical.....734.786.4900
 Dependency Services
 www.sjmh.com
 Clear House-Help Source.....734.973.1900
 www.helpsourceagency.com
 Ann Arbor Consultation Services.....734.996.9111
 Chelsea Arbor Treatment Center.....734.930.0201
 www.chelseaarbor.org
 Alcoholics Anonymous.....734.482.5700
 www.hv-intergroup.org
 Narcotics Anonymous.....734.913.9839
 (for Washtenaw and Livingston County)

Brighton/Livingston County
 Brighton Hospital.....810.227.6143
 www.brightonhospital.org
 Narcotics Anonymous for Washtenaw.....734.913.9839
 and Livingston County
 Livingston Council Alcohol and.....810.225.2530
 Drug Services, Outpatient Services

Detroit Metropolitan Area	
Alcoholics Anonymous for Detroit.....	313.831.5550
or Wayne County	
Narcotics Anonymous.....	248.543.7200
Insight Recovery Centers.....	800.356.8989
www.insightrecovery.org/wayne.htm	
Eastwood Clinics	
www.stjohn.org	
Dearborn.....	313.583.0735
Detroit (Gratiot and 8 Mile).....	313.369.5000
Flint	
Insight Recovery Centers.....	810.356.8989
www.insightrecovery.org	
Community Recovery Services.....	810.744.3600
Narcotics Anonymous.....	810.238.3636
Alcoholics Anonymous.....	810.234.0815
Howell/Livingston County	
Livingston Council Alcohol &.....	810.225.2530
Drug Services, Outpatient Services	
Jackson	
Washington Way.....	517.782.4001
Alcoholics Anonymous in Jackson.....	517.789.8883
Saline	
Saline Hospital — Greenbrook Recovery Center.....	734.786.4900
Toledo	
Alcoholics Anonymous.....	419.380.9862
Narcotics Anonymous.....	800.587.4232
Toledo Hospital Alcohol and Drug	
Assessment and Treatment Center	
Inpatient.....	419.291.2351
Outpatient/assessment.....	419.291.2300

SANCTIONS FOR VIOLATIONS OF LAWS and POLICIES:

The laws of the state of Michigan and Eastern Michigan University's policies and rules prohibit the consumption or possession for personal consumption of alcoholic beverages by persons less than 21 years of age. Further, Michigan laws and University policies prohibit the sale, service or giving of alcoholic beverages to persons under the age of 21. Eastern Michigan University's policies and rules, Local ordinances and laws, State laws and Federal laws also prohibit the unlawful possession, use and/or distribution of illicit drugs and alcohol.

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.
- Required attendance at substance abuse education or treatment programs.
- Federal laws prohibit possession, use, distribution, manufacture or dispensing.

A full description of federal sanctions for drug felonies can be found at the following url: www.usdoj.gov/dea/agency/penalties.html.

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.

Information about violations related to tobacco use can be found under EMU Tobacco Use policy.

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. The FERPA policy can be found at www.emich.edu/registrar/ferpa.htm.

Information about violations related to tobacco use can be found under EMU Tobacco Use policy.

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 University-level 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 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 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.

Tobacco Use Policy

University Policy Statement

The University is committed to promoting and maintaining a healthy work and academic environment that is as close to tobacco free as practically possible in accordance with all federal, state and local laws. Students, employees and visitors are prohibited from using tobacco throughout all University buildings (except in University Apartments), University vehicles and out of buildings within 25 feet of any entrance, air intake duct and/or window.

- The use of tobacco products is prohibited in all University buildings and leased spaces. This prohibition applies to any area enclosed by the perimeter (outermost) walls of the building, including rest rooms, warehouses, storage places, atriums, balconies, stairwells and other similar building features considered "within" a building.
- The use of tobacco products is prohibited within 25 feet of any building entrance, air intake duct and window.
- Specific outside areas for tobacco use will not be established or identified.
- The University will install ashtrays and other appropriate tobacco liter appliances beyond 25 feet from buildings.
- Individuals who use tobacco products will be responsible for their proper disposal.
- The use of tobacco products is prohibited in University vehicles. This prohibition includes passenger vehicles and all other state-owned mobile equipment, including light and heavy duty trucks, cargo and passenger vans, buses, golf carts and any other mobile equipment.
- The use of tobacco products is prohibited in outdoor areas where seating is provided.
- The use of tobacco products is prohibited on the grounds of the Children's Institute.
- University Health Services will provide educational information and programs on tobacco use cessation.
- Vice presidents, deans, directors and department heads are responsible for informing the campus community of the tobacco use policy and overseeing day-to-day compliance. The appropriate administrative division will address violations and habitual offenders of this policy.

Sanctions for Violations of Laws and Policies

The laws of the state of Michigan and Eastern Michigan University's policies and rules prohibit the use of tobacco in public buildings.

Community Sanctions:

- Violations of the Michigan Clean Indoor Air Act are subject to civil fines of not more than \$100 for the first violations and not more than \$500 for the second or subsequent violations.
- Violations of the smoking prohibition at child care centers and child care institutions are subject to a stricter penalty of a fine not less than \$100 and not more than \$1,000.

University Sanctions:

Violation of University policies and rules will be subject to campus disciplinary review and action as following:

Faculty and Staff:

Disciplinary action will be taken as per applicable collective bargaining agreements and University policy up to and including termination of employment for habitual repeat offenders.

Students:

Students who violate this policy are subject to disciplinary action in accordance with the provisions of the Student Conduct code. Sanctions for violations may include verbal warning, formal reprimand, prohibition, suspension or dismissal.

Visitors:

Violation of University rules and regulations by visitors could result in permanent removal from EMU properties.

Health Effects of Tobacco Use

Smoking

- Cigarette smoking increases the risk for many types of cancer, including cancers of the lip, oral cavity and pharynx; esophagus; pancreas; larynx; lung; uterine cervix; urinary bladder; and kidney.
- Cigarette smokers are two to four times more likely to develop coronary heart disease than nonsmokers
- Cigarette smoking approximately doubles a person's risk for stroke.
- Cigarette smoking has many adverse reproduction and early childhood effects, including an increased risk for infertility, pre term delivery, stillbirth, low birth weight and sudden infant death syndrome.

Second Hand Smoke

- Secondhand smoke is associated with an increased risk for lung cancer and coronary heart disease in nonsmoking adults. Secondhand smoke is a known human carcinogen (cancer-causing agent)
- Because their lungs are not fully developed, young children are particularly susceptible to secondhand smoke. Exposure is associated with an increased risk for sudden infant death syndrome, asthma, bronchitis and pneumonia in young children.

Smokeless Tobacco

- Smokeless tobacco contains 28 cancer-causing agents (carcinogens). It increases the risk of developing cancer of the oral cavity.
- Smokeless tobacco use can lead to nicotine addiction and dependence.

Assistance available to students, faculty, staff and their families at EMU:

University Health Services:

Medical Services 734.487.1122

Health Education Program: 734.487.2226

For further information or the pdf downloadable version of the policy go to www.emich.edu/uhs/tobaccopoly.html

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 Software: 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 statewide 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 (ICT) 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. ICT 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. ICT 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, data bases 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 (derivative 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. "Noncopy-protected" software enables you to protect your investment by making a back-up copy. In offering noncopy-protected 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.

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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: Thomas W. Sidlik
Vice Chair: Roy E. Wilbanks
Secretary: Jackie Jurtz
Floyd Clack
Francine Parker
Gary D. Hawks
Ismael Ahmed
James F. Stapleton
Philip A. Incarnati

Office of the President and Strategic Operations Council

President: John A. Fallon, III
Provost and Vice President for Academic Affairs: Donald Loppnow
Vice President for Advancement and Executive Director of EMU
Foundation: Darryl Szczepanski
Vice President of Business and Finance: Janice Stroh
Vice President for Enrollment Management(Interim): Bernice Lindke
Vice President for Student Affairs: James F. Vick
Associate Vice President of University Marketing
and Communication: Ted Coutilish
Executive Director of Intercollegiate Athletics: Derrick Gragg
General Counsel/University Attorney: Kenneth A. McKanders
Chief Information Officer (Interim): Connie Schaffer
Chief Government Relations Officer: Freman Hendrix

Intercollegiate Athletics

Executive Director: Derrick Gragg

Legal Affairs

University Attorney: Kenneth A. McKanders

University Marketing and Communications

Associate Vice President of University Marketing
and Communication: Ted Coutilish

Division of Academic Affairs

Office of the Provost

Provost and Vice President for Academic Affairs: Donald Loppnow
Executive Associate to the Provost for Development: Dennis Beagen
Associate Provost and Associate Vice President for Research (Interim):
Robert Neely
Associate Vice President for Academic Programming: Vacant
Dean of Graduate Studies (Interim): Deb DeLaski-Smith

Division of Advancement

Vice President for Advancement and Executive Director of the EMU
Foundation: Darryl Szczepanski
Director of Alumni Relations: Vicki Reaume

Division of Business and Finance

Vice President of Business and Finance: Janice Stroh
Associate Vice President, Facilities: Anthony M. Catner
Assistant Vice President and Controller (Interim): Daniel B. Cooper

Human Resources

Associate Vice President of Human Resources (Interim): Karen Simpkins

Division of Enrollment Management

Vice President (Interim): Bernice A. Lindke
Assistant Vice President and Registrar (Interim): Christina Shell

Academic Advising Center

Director: Patricia L. Williams

Admissions

Director (Interim): Kathy Orscheln

Financial Aid

Associate Director: Cynthia Van Pelt

Holman Learning Center

Director: Margaret Carter

Records and Registration

Assistant Vice President (Interim): Christina Shell

Service EMU

Director: Gretchen Ward

Division of Student Affairs

Vice President: James F. Vick
Acting Associate Vice President: J. Michael Erwin

Career Services Center

Director (Interim): Sarah Kersey Otto

Convocation Center

Interim Director: Mark Monahan

Dining Services

Director: Larry Gates

Department of Public Safety

Director: Cindy Hall

Housing

Director: Rebecca J. Figura

Leadership and Involvement

Executive Director: Glenna Frank Miller

Ombudsman

Gregory A. Peoples

Recreation/Intramurals

Director: Robert W. England

Student Judicial Services

Director (Interim): Jesús Hernández

Student Media

Director: Kevin Devine

University Health Services

Executive Director: Ellen Gold

Faculty

Accounting and Finance

Brickner, Daniel R. (2000) Associate Professor, Ph.D.; Kent State University
Bunsis, Howard (1998) Professor; Ph.D.; University of Chicago
Burilovich, Linda (1991) Professor; Ph.D.; University of Michigan
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
Hanson, Robert C. (1996) Professor; Ph.D.; University of Utah
Hwang, Angela (2002) Associate Professor; Ph.D.; University of Houston
Kattelus, Susan C. (1990) Professor and Department Head; Ph.D.; Michigan State University
Keener, Mary (2005) Assistant Professor; Ph.D. pending; Kent 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
LaGore, William (2006) Assistant Professor; Ph.D. pending; Florida State University
Lewis, Philip (2005) Assistant Professor; Ph.D.; University of Cincinnati
Mahoney, Lois (2004) Assistant Professor; Ph.D.; University of Central Florida
McCombs, Gary B. (1982) Associate Professor; M.B.A.; University of Michigan
Moeller, Susan (1990) Professor; Ph.D.; Michigan State University
Okopny, Robert D. (1988) Professor; Ph.D.; Texas A&M University
Rahman, Mahmud (1991) Professor; Ph.D.; University of Texas-Arlington
Ross, Barbara W. (2003) Professor; Ph.D.; Michigan State University
Scazzero, Joseph (2001) Professor; Ph.D.; Pennsylvania 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

Okafor, Victor O. (1995) Professor; Ph.D.; Temple University
Perry, Robert L. (1997) Professor; Ph.D.; Wayne State University
Peters, Melvin T. (1992) Associate Professor; Ph.D.; Michigan State University
Semmes, Clovis E. (1988) Professor; Ph.D.; Northwestern University
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
Locke, Jennifer (2005) Assistant Professor, M.F.A.; Wichita State University
Liu, Beili (2005) Assistant Professor, M.F.A.; University of Michigan
Maniotes, Andrew (2002) Assistant Professor; M.F.A.; Minneapolis College of Art and Design
Molloy, Ryan (2004) Assistant Professor, M.F.A., University of Texas
Myers, Julia (1990) Professor; Ph.D.; University of Maryland
Nelson, Brian (2000) Assistant Professor; M.F.A.; Michigan State University
Otto, Gretchen (1987) Professor; Ph.D.; Pennsylvania State University
Pancioli, Diana (1991) Associate Professor; M.F.A.; Alfred University
Pawloski, Carole (1991) Associate Professor; M.A.; Michigan State University
Reedy, Michael (2005) Assistant Professor, M.F.A.; Northern Illinois University
Rubenfeld, Richard (1986) Professor; Ph.D.; Ohio State University
Ruggiero, Maria F. (2001) Assistant Professor; M.F.A.; Kent State University
Sacksteder, Amy. (2006) Assistant Professor; M.F.A.; University of Northern Illinois
Schwartz, Ellen (1977) Professor; Ph.D.; Institute of Fine Arts-New York

Suchan, Thomas (2003) Assistant Professor, Ph.D., Ohio State University
Tammany, David D. (1966) Professor; M.F.A.; Tulane University;
Venner, Thomas (1998) Professor and Department Head; M.F.A.; Eastern Michigan University
Washington, Richard (1970) Associate Professor; M.A.; Eastern Michigan University
Williams, Patricia J. (1976) Professor; M.F.A. Indiana University
Yang, Guey-Meei (2003) Assistant Professor, Ph.D., Ohio State University

Biology

Angell, Michael (1996) Associate Professor; Ph.D.; Pennsylvania State University
Bach, Catherine E. (1991) Professor; Ph.D.; University of Michigan
Bednekoff, Peter (1997) Associate Professor; Ph.D.; Oxford University
Booth, Howard D. (1967) Professor; Ph.D.; Michigan State University
Clemans, Daniel (2000) Associate Professor; Ph.D.; University of Minnesota
Coffman, Margaret A. (2001) Associate Professor; Ph.D.; Notre Dame University
Eidietis, Laura (2005) Assistant Professor; Ph.D.; University of Michigan
Eisenbach, Jamin (1990) Professor; Ph.D.; University of California-Berkeley
Francoeur, Steve (2002) Assistant Professor, Ph.D.; University of Alabama
Greco, Tamara (1996) Associate Professor; Ph.D.; University of Wisconsin-Madison
Hannan, Gary L. (1982) Professor; Ph.D.; University of California-Berkeley
Kass, David (1996) Professor; Ph.D.; University of South Carolina
Kurta, Allen (1988) Professor; Ph.D.; Boston University
Laporte, Marianne M. (2001) Associate Professor; Ph.D. University of Wisconsin
Liepman, Aaron (2006) Assistant Professor; Ph.D.; University of Michigan
Liggitt, Peggy (1998) Associate Professor; Ph.D.; University of Nevada-Reno
Neely, Robert K. (1984) Professor and Associate Vice President, Academic Affairs; Ph.D.; Iowa State University
Reinhardt, Ulrich (2000) Associate Professor; Ph.D.; University of British Columbia
Shillington, Cara (2001) Associate 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 S. (1995) 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
Nims, Julia (2000) Assistant Professor; M.L.S.; Indiana University
Owen, Eric (2000) Instructor; M.S.I.; University of Michigan
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) Associate 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

Contis, Ellene T. (1971) Professor; Ph.D.; University of Michigan
 Emal, Cory (2005) Assistant Professor; Ph.D.; University of Michigan
 Flanagan Johnson, Amy (2006) Assistant Professor; Ph.D.; Purdue University
 Friebe, Timothy L. (1990) Associate Professor; Ph.D.; Northwestern University
 Guy-Evans, Hedeel (2005) Associate Professor; Ph.D.; Wayne State University
 Heyl-Clegg, Deborah L. (1992) Professor; Ph.D.; University of Michigan
 Holmes-Smith, Heather L. (1998) Associate Professor; Ph.D.; University of Michigan
 Howard, Arthur S. (1990) Professor; Ph.D.; Cambridge University
 Kennedy, Vance O. (1996) Professor; Ph.D.; Case Western Reserve University
 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
 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 Associate Dean of College of Arts and Sciences; Ph.D.; University of Minnesota
 Vites, Jose C. (1991) Associate Professor; Ph.D.; University of Notre Dame
 Wilmes, Gregg M. (2006) Assistant Professor; Ph.D.; Stanford University

Communication and Theatre Arts

Aghssa, Pirooz (1995) Associate Professor; Ph.D.; Texas Tech University
 Aldridge, Henry B. (1972) Professor; Ph.D.; University of Michigan
 Alexander, Jessica (2000) Associate Professor; M.F.A.; Eastern Michigan University
 Beagen, Dennis M. (1967) Professor and Department Head; M.A.; University of Michigan
 Booth, Susan Badger (2006) Assistant Professor; M.F.A.; Columbia University
 Bridges, Wallace (1992) Professor; M.F.A.; Western Illinois University
 Cooper, John. G. (1993) Professor; Ph.D.; Bowling Green State University
 Damron, Keith (2005) Assistant Professor; M.A.; Eastern Michigan University
 Evans, Gary L. (1970) Professor; Ph.D.; University of Michigan
 Fields, Doris (1997) Associate Professor; Ph.D.; Wayne State University
 Foreman, Chris (1994) Professor; Ph.D.; University of Kentucky
 Hammill, Geoffrey D. (1987) Professor; Ph.D.; Bowling Green State University
 Heck-Seibert, Theresa (1992) Professor; M.F.A.; University of Wisconsin
 Kindred, Jeanette (2006) Assistant Professor; Ph.D.; Wayne State University
 McCracken, Sally R. (1968) Professor; Ph.D.; Wayne State University
 Patrick, Dennis P. (1996) Professor; Ph.D.; University of Texas
 Quiel, Ramond (1999) Instructor; M.A.; Eastern Michigan University
 Rich, Anita (1996) Professor; Ph.D.; Southern Illinois University
 Robinson, James A. (1988) Professor; Ph.D.; University of Michigan
 Schuessler, Melanie (2005) Assistant Professor; M.F.A.; University of Wisconsin
 Shen, Tsai-Shan (2006) Assistant Professor; Ph.D.; Arizona State University
 Simmons, Phil (2006) Assistant Professor; M.F.A.; University of Georgia
 Stacey, Kathleen (1992) Professor; Ph.D.; Wayne State University
 Stevens, Kenneth W. (1972) Professor; M.A.; University of Cincinnati
 Stille, Lee (1998) Associate Professor; Ph.D.; University of Minnesota
 Sturgis Hill, Judy (1992) Assistant Professor; M.A.; Eastern Michigan University
 Tanner, Christine (2002) Assistant Professor; Ph.D.; Brigham Young University

Tew, Michael A. (1989) Professor; Ph.D.; Wayne State University
 Watson, Mary Ann (1990) Professor; Ph.D.; University of Michigan
 Zimmer, Patricia Moore (1980) Professor; M.F.A.; Florida State University

Computer Information Systems

Ahmad, S. Imtiaz (1981) Professor; Ph.D.; University of Ottawa
 Chou, David C. (2001) Professor; Ph.D.; Georgia State University
 Chung, Sock (2002) Assistant Professor; Ph.D.; Auburn University
 Esteva, Juan C. (1990) Associate Professor; Ph.D.; Wayne State University
 Farah, Badie N. (1982) Professor; Ph.D.; Ohio State University
 Gibson, Fiason (2006) Assistant Professor; Ph.D.; Carnegie Mellon University
 Lee, Huei (2001) Associate Professor; Ph.D.; Georgia State University
 Mrdalj, Stevan (1987) Professor; Ph.D.; University of Belgrade, Serbia and Montenegro
 Saxon, Charles S. (1976) Professor; Ph.D.; University of Michigan
 Schoenherr, Tobias (2005) Assistant Professor; Ph.D.; Indiana University
 Sokkar, Fathi F. (1971) Professor; Ph.D.; University of Illinois
 Tang, Hung-Lian (2000) Professor; Ph.D.; University of Nebraska-Lincoln
 Tummala, Rao V.M. (1981) Professor; Ph.D.; Michigan State University
 Wu, Nesa L. J. (1974) Professor; Ph.D.; Purdue University

Computer Science

Bahorski, Zenia (1990) Instructor; M.S.; Eastern Michigan University
 Chaudhuri, Ranjan (1984) Professor; Ph.D.; University of South Florida
 Evett, Matthew (1999) Associate Professor; Ph.D.; University of Maryland
 Haynes, Susan M. (1992) Associate Professor; Ph.D.; University of Michigan
 Höft, Hartmut F.W. (1970) Professor; 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) Associate 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) Associate Professor; Ph.D.; University of Toledo
 Sverdluk, 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

Crary, David B. (1982) Associate Professor; Ph.D.; University of Maryland
 Dewan, Abdullah (1984) Professor; Ph.D.; University of Kentucky
 Edgren, John (1979) Professor; Ph.D.; University of Michigan
 Erenburg, Sharon J. (1986) Professor; Ph.D.; University of Illinois
 Hanna, Raouf S. (1973) Professor and Department Head; Ph.D.; Indiana University
 Hayworth, Steven C. (1977) Associate Professor; Ph.D.; Massachusetts Institute of Technology
 Moreland, Kemper (1980) Professor; Ph.D.; University of Wisconsin
 Pearson, Donald W. (1970) Professor; Ph.D.; University of Texas
 Rice, Jennifer (2004) 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 M. (1981) Professor; Ph.D.; Purdue University

Engineering Technology

Baghdachi, Jamil (1997) Professor; Ph.D.; University of Mississippi
 Bari, Mohamad J. (Jamal) (2000) Associate Professor; Ph.D.; University of Arkansas
 Benedict, Dozie Illozor (2006); Associate Professor; Ph.D.; University of Technology, Sydney
 Brake, Mary (2004) Professor; Ph.D.; Michigan State University
 Chapman, Robert E. (1992) Assistant Professor; Ph.D.; Yale University

DeLaski-Smith, Deborah (1978) Professor and Interim Dean, Graduate Studies; Ph.D.; Michigan State University
 Fields, Daniel J. (1986) Professor and Department Head; Ph.D.; Michigan State University
 Greenfield, M.C. (2005) Assistant Professor; MS; Southern Illinois University
 Jones, Louise (1990) Professor; Ph.D.; University of Michigan
 Kanagy, Max E. (1986) Professor; Ph.D.; Ohio State University
 Lahidji, Bob (Behrooz) (1994) 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
 Mannari, Vijaykumar (2002) Assistant Professor; Ph.D.; Sadar Patal University
 Mitchell, James G. (Greg) (2000) Associate Professor; Ph.D.; Wayne State University
 Moylan, William (2001) Instructor; Ph.D.; Capella University
 Rufe, Phillip (1990) Instructor; M.S.; Eastern Michigan University
 Shay, Tony F. (1990) Professor; Ph.D.; Iowa State University
 Sipos, Maria (2005) Assistant Professor; M.A.; Eastern Michigan University
 Soyster, Thomas G. (1982) Associate Professor; Ed.D.; Temple University
 Speelman, Pamela (1990) Professor; Ed.D.; Wayne State University
 Stein, James (1990) Associate Professor; Ph.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
 Allen, Nancy (1991) Professor; Ph.D.; Purdue University
 Aristar, Anthony (2006) Professor; Ph.D.; University of Texas at Austin
 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) Associate Professor; Ph.D.; University of California at Santa Barbara
 Barr, Mark (2006) Assistant Professor; Ph.D.; Vanderbilt University
 Benninghoff, Steven (2002) Assistant Professor; Ph.D.; Purdue University
 Blakeslee, Ann (1996) Professor; Ph.D.; Carnegie-Mellon University
 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) Associate 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
 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 Department Head; Ph.D.; Ohio State University
 Goodman, Beverly (1996) Associate Professor; Ph.D.; Cornell University
 Grondona, Veronica (2000) Associate Professor; Ph.D.; University of Pittsburgh
 Hendrix, Lolita (1994) Professor; M.A.; Eastern Michigan University
 Hume, Christine (2001) Associate Professor; Ph.D.; University of Denver
 Kaston, Andrea (2000) Associate Professor; Ph.D.; University of Wisconsin
 Kauffman, Janet (1988) Professor; Ph.D.; University of Chicago
 Knapp, James (1998) Associate Professor; Ph.D.; University of Rochester

Kovacevic, Nataša (2006) Assistant Professor; Ph.D.; University of Florida
 Krause, Steven (1998) Associate Professor; Ph.D.; Bowling Green University
 Larson, Russell R. (1970) Professor; Ph.D.; University of Michigan
 Lucy, Robin (2002) Assistant Professor; Ph.D.; McMaster University
 Miller, Bernard A. (1987) Professor; Ph.D.; Purdue University
 Morris, Tracie (2005) Assistant Professor; Ph.D.; New York University
 Most, Sheila (1971) Professor; Ph.D.; Northwestern University
 Motschall, Melissa (1995) Professor; Ph.D.; Wayne State University
 Neff, Heather (1993) Professor; Ph.D.; University of Zurich
 Neufeld, Christine (2003) Assistant Professor; Ph.D.; McGill University
 Norton, Alexandra M. (1989) Professor; Ph.D.; University of California-Berkeley
 Parker, Jeff (2004) Assistant Professor; M.F.A.; Syracuse University
 Pinson, James (1990) Professor; Ph.D.; University of Missouri-Columbia
 Schlagheck, Carol (1995) Professor; Ph.D.; Bowling Green University
 Seely, Daniel T. (1988) Professor; Ph.D.; University of Massachusetts at Amherst
 Shichtman, Martin B. (1984) Professor; Ph.D.; University of Iowa
 Simmons, Charles (1997) Professor; J.D.; Georgetown
 Sipe, Rebecca (1997) Associate Professor; Ed.D.; Boston University
 Tracey, Christine (2005) Assistant Professor; Ph.D.; Rensselaer Polytechnic Institute
 Tucker, William (1993) Professor; Ph.D.; Boston College
 Wannamaker, Annette (2005) Assistant Professor; Ph.D.; Bowling Green University
 Wojcik-Andrews, Ian (1990) Professor; Ph.D.; University of Connecticut

Foreign Language and Bilingual Studies

Aebersold, Jo Ann (1984) Professor; Ph.D.; University of Michigan
 Cere, Ronald C. (1985) Professor; Ph.D.; New York University
 Cline, William J. (1970) Professor; Ph.D.; State University of New York
 Cullen, Thomas J. (1994) Professor; Ph.D.; Klagenfurt University
 Damiano, Carla A. (2001) Assistant Professor; Ph.D.; University of Oregon
 Day, Catherine E. (1982) Professor; Ph.D.; University of Illinois
 Dugan, Sanford J. (1974) Professor; Ph.D.; Washington University, Missouri
 Holoka, James P. (1974) Professor; Ph.D.; University of Michigan
 Illingworth-Rico, Alfonso (1994) Associate Professor; Ph.D.; University of Arizona
 Kirby, Steven D. (1991) Professor; Ph.D.; University of Kentucky
 Kubota, Sayuri (2005) Assistant Professor; Ph.D.; Purdue University
 Mihalý, Deanna (2005) Assistant Professor; Ph.D.; Tulane University
 Morgan, Elisabeth (1991) Professor and Department Head; Ph.D.; University of New York at Buffalo
 Nerenz, Anne G. (1986) Professor; Ph.D.; University of Wisconsin
 Oketani-Lobbezoo, Hitomi (1996) Associate Professor; Ph.D.; University of Toronto
 Palmer, Benjamin W. (1970) Professor; Ph.D.; Northwestern University
 Peden, Genevieve (1992) Professor; Ph.D.; Michigan State University
 Popko, Alexander Jeffrey (2005) Assistant Professor; Ph.D.; University of Northern Arizona
 Tabuse, Motoko (1992) Professor; Ph.D.; Ohio State University
 Vosteen, Thomas R. (1991) Professor; Ph.D.; University of Iowa
 Voght, Geoffrey M. (1971) Professor; Ph.D.; University of Michigan
 Wang, Wendy (1999) Associate Professor; Ph.D.; University of Toronto
 Zinggeler, Margrit (1999) Associate Professor; Ph.D.; University of Minnesota

Geography and Geology

Bradley, Michael D. (1995) Associate Professor; Ph.D.; University of Utah
 Cherem, Gabriel J. (1987) Professor; Ph.D.; University of Michigan
 Clark, Christine (2002) Assistant Professor; Ph.D.; University of Manitoba, Canada
 Jones, Robert A. (2003) Assistant Professor; Ph.D.; Portland State University
 Kasenow, Michael (1989) Professor; Ph.D.; Western Michigan University
 Ligibel, Ted (1991) Professor; Ph.D.; Bowling Green State University
 LoDuca, Steven T. (1992) Professor; Ph.D.; University of Rochester
 Mayda, Chris (1999) Associate Professor; Ph.D.; University of Southern California
 Nazzaro, Andrew (1969) Professor; Ph.D.; Michigan State University
 Poli, Serena M. (2000) Associate Professor; Ph.D.; University of Padova, Italy

Rutherford, Sandra (2003) Assistant Professor; Ph.D.; University of Western Ontario, Canada
 Semple, Hugh (2002) Assistant Professor; Ph.D.; University of Manitoba, Canada
 Sickels-Taves, Lauren (1998) Associate Professor; Ph.D.; University of Edinburgh
 Tyler, Norman R. (1990) Professor; Ph.D.; University of Michigan
 Welsh, William (2005) Assistant Professor; Ph.D.; UNC-Chapel Hill
 Xie, Yichun (1994) Professor; Ph.D.; State University of New York-Buffalo

Health Promotion and Human Performance

Bedford, Eddie (1989) Assistant Professor; M.S.; University of Wisconsin
 Bretting, Michael (1993) Associate Professor and Associate Dean, College of Education; Ph.D.; University of Maryland
 Chiasson, Victor (1991) Assistant Professor; M.A.; Central Michigan University
 Colon, Geoffrey (1998) Associate Professor; Ph.D.; Michigan State University
 Conley, Kathleen (1999) Professor; Ph.D.; Southern Illinois University at Carbondale
 Cowdery, Joan (2006) Assistant Professor; Ph.D.; University of Alabama
 Faust, Roberta (2000) Assistant Professor; Ph.D.; Ohio State University
 Johnson, Jodi (1998) Assistant Professor, M.S.; University of Florida
 Karshin, Christine M. (2001) Associate Professor; Ph.D.; The Pennsylvania State University
 Levine, Shel (1999) Associate Professor; M.S., M.S.A., C.E.S.; Syracuse University
 McCarthy, Susan K. (2001) Associate Professor; Ph.D.; University of Toledo
 McGregor, Stephen (2000) Associate Professor; Ph.D.; University of Toledo
 Moreno, A. (2004) Assistant Professor; Ph.D.; Michigan State University
 Moyer, Steve W. (1988) Professor; Ed.D.; Temple University
 Nair, Muralidaran (2000) Associate Professor; Ph.D.; University of Virginia
 Paciorek, Michael (1981) Professor; Ph.D.; Peabody College of Vanderbilt University
 Pendleton, Sharon Y. (1988) Instructor; M.A.; Oklahoma University
 Ricciardo, Jerry (1988) Associate Professor; Ph.D.; Texas A&M University
 Riemer, Brenda (2004) Assistant Professor; Ph.D.; Michigan State University
 Woodiel, Kay (1998) Assistant Professor; Ph.D.; University of Arkansas
 Zelnik-Geldys, Suzanne Marie (1990) Assistant Professor; M.A.; University of Pittsburgh

Health Sciences

Brooks, Judith (1999) Associate Professor; Ph.D.; Oklahoma State University
 Clifford, David (1986) Professor; Ph.D.; University of Michigan
 Croxall, Colleen L. (1996) Assistant Professor; Ph.D.; Wayne State University
 Douglass, Richard (1987) Professor; Ph.D.; University of Michigan
 Francis-Connolly, Elizabeth (1991) Professor; Ph.D.; University of Michigan
 Hammerberg, Gary (1984) Assistant Professor; Ed.D.; Western Michigan University
 Hansen, Ruth (1976) Professor Emeritus; Ph.D.; Wayne State University
 Haque, Rubina (2006) Assistant Professor; Ph.D.; Wayne State University
 Howells, Valerie (1998) Associate Professor; Ph.D.; Cambridge Graduate School of Psychology
 Lemerand, Pamela (2005) Assistant Professor; Ph.D.; University of Michigan
 Liepa, George U. (1995) Professor and Department Head; Ph.D.; Iowa State University
 Misty, Arahita (2005) Assistant Professor; Ph.D.; University of Hyderabad, India.
 Olson, Judith (1991) Professor; Ph.D.; Wayne State University
 Rainville, Alice Jo (1998) Professor; Ph.D.; University of Texas-Houston
 Reeves, Gretchen D. (2001) Associate Professor; Ph.D.; University of Michigan
 Silverman, Deborah W. (1979) Assistant Professor; M.S.; University of Cincinnati
 Sonstein, Stephen (1984) Professor; Ph.D.; Hahneman Medical College
 Thomas, David (1997) Associate Professor; Ed.D.; Temple University
 Walsh, Pamela (2005) Assistant Professor; M.A.; Wayne State University

History and Philosophy

Bruya, Brian (2004) Assistant Professor; Ph.D.; University of Hawaii
 Cassar, George H. (1968) Professor; Ph.D.; McGill University
 Chamberlain, Kathleen P. (2001) Associate Professor; Ph.D.; University of New Mexico
 Citino, Robert (1991) Professor; Ph.D.; Indiana University
 Crouch, Margaret (1987) Professor; Ph.D.; University of Minnesota
 Delph, Ronald (1993) Associate Professor; Ph.D.; University of Michigan
 Dieterle, Jill Marie (1998) Associate Professor; Ph.D.; Ohio State University
 Egge, James (2002) Associate Professor; Ph.D.; University of Chicago
 Engwenyu, Joseph (1994) Instructor; ABD; University of Dalhousie
 Graves, Pamela (1989) Associate Professor; Ph.D.; University of Pittsburgh
 Higbee, Mark (1995) Professor; Ph.D.; Columbia University
 Holoka, James P. (1974) Professor; Ph.D.; University of Michigan
 Homel, Michael W. (1970) Professor; Ph.D.; University of Chicago
 Jones, Michael T. (1973) Professor; Ph.D.; Ohio State University
 Long, Roger D. (1990) Professor; Ph.D.; University of California
 McCurdy, John (2004) Assistant Professor; Ph.D.; Washington University
 Mehuron, Kate (1989) Professor; Ph.D.; Vanderbilt University
 Moss, Walter G. (1970) Professor; Ph.D.; Georgetown University
 Murcher, Stephen (2003) Assistant Professor; Ph.D.; University of Michigan
 Nation, Richard F. (2001) Associate Professor; Ph.D.; University of Michigan
 Nelson, Gershon A. (1997) Professor; Ph.D.; University of Illinois-Chicago
 Olwell, Russell B. (1999) Associate Professor; Ph.D.; Massachusetts Institute of Technology
 Pritchard, Linda K. (2003) Professor; Ph.D.; University of Pittsburgh
 Ramold, Steven (1999) Assistant Professor; Ph.D.; University of Nebraska
 Reed, Michael H. (1987) Professor; Ph.D.; University of Minnesota
 Schmitz, Philip C. (1993) Associate Professor; Ph.D.; University of Michigan
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Leadership and Counseling

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Management

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Mathematics

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Social Work

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 Schuster, Elizabeth Oates (1986) Professor; Ph.D.; University of Michigan
 Smith, Harrison Y. (1994) Professor; Ph.D.; University of Denver
 Wedenoja, Marilyn (1992) Professor; Ph.D.; University of Michigan
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 Corsianos, Marilyn (2002) Assistant Professor; Ph.D.; York University
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 Moaddel, Mansoor (1987) Professor; Ph.D.; University of Wisconsin
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 Sinclair, Karen (1976) Professor; Ph.D.; Brown University
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Special Education

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Technology Studies

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Cardon, Phillip (1999) Associate Professor; Ph.D.; Ohio State University
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Women's and Gender Studies

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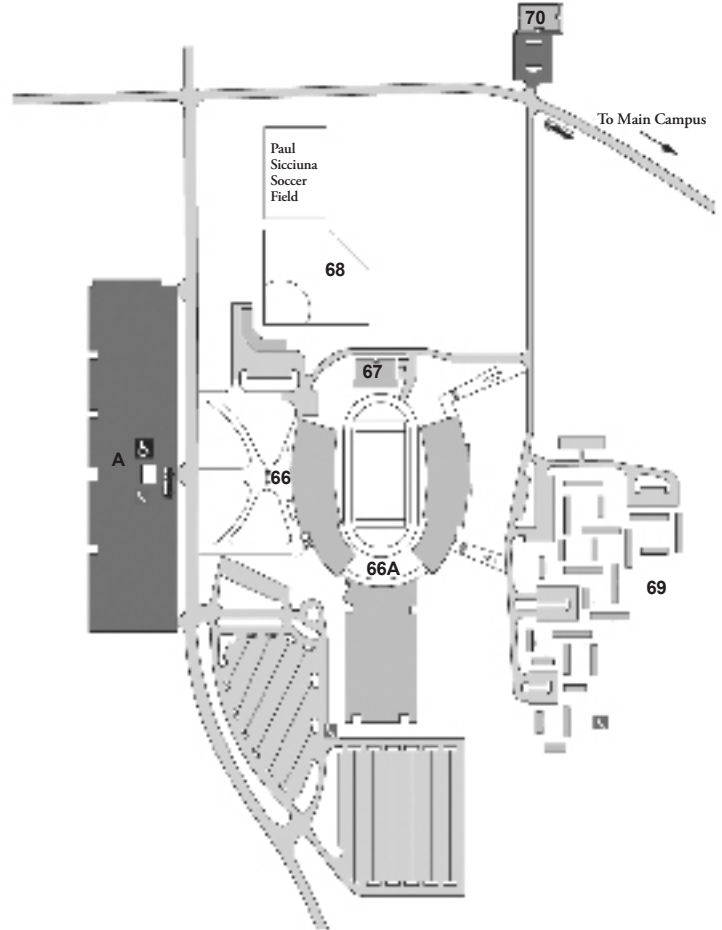
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Commuter Hangtag Parking

S	Ann Street Lot
D2	Bowen Lot
N	Bowman-Roosevelt Lot (after 5 p.m.)
V	College of Business Structure
Q	Ford Lot A (after 7:30 p.m.)
R	Ford Lot B
U	Key Bank Lot (after 6 p.m., M-Th, fall and winter)
Z	Mayhew Lot 1
Z2	Mayhew Lot 2
F	McKenny Staff Lot (after 5 p.m.)
L	Normal Street Lot (after 6:30 p.m.)
I	North Campus Lot 1
B	North Campus Lot 2
D1	Oakwood Lot (North)
E	Oakwood Lot (South)
D	Parking Structure
O	Pease Lot A
P	Pease Lot B (after 5 p.m.)
T	Sill Lot (after 5 p.m.)
J	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
D2	Bowen Lot
N	Bowman-Roosevelt Lot
V	College of Business Structure
Q	Ford Lot A
C	Hoyt Lot
U	Key Bank Lot (after 6 p.m., M-TH, fall and winter)
H	Mark Jefferson Lot
Z	Mayhew Lot 1
Z2	Mayhew Lot 2
F	McKenny Staff Lot
L	Normal Street Lot A
D1	Oakwood Lot (North)
E	Oakwood Lot (South)
D	Parking Structure
O	Pease Lot A
P	Pease Lot B
T	Sill Lot
M	Snow Lot
J	Smith Lot
W	Washington Street Lot

Special Parking Areas

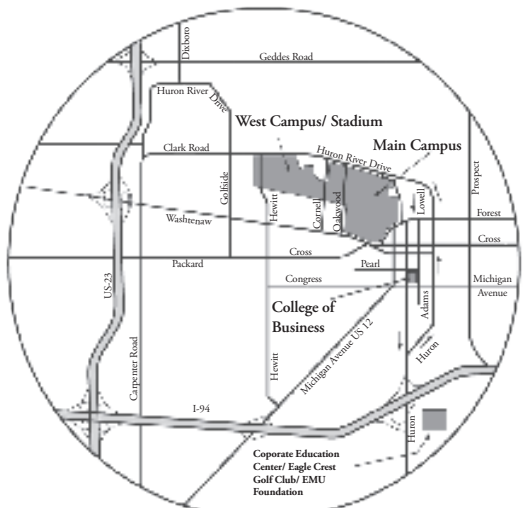
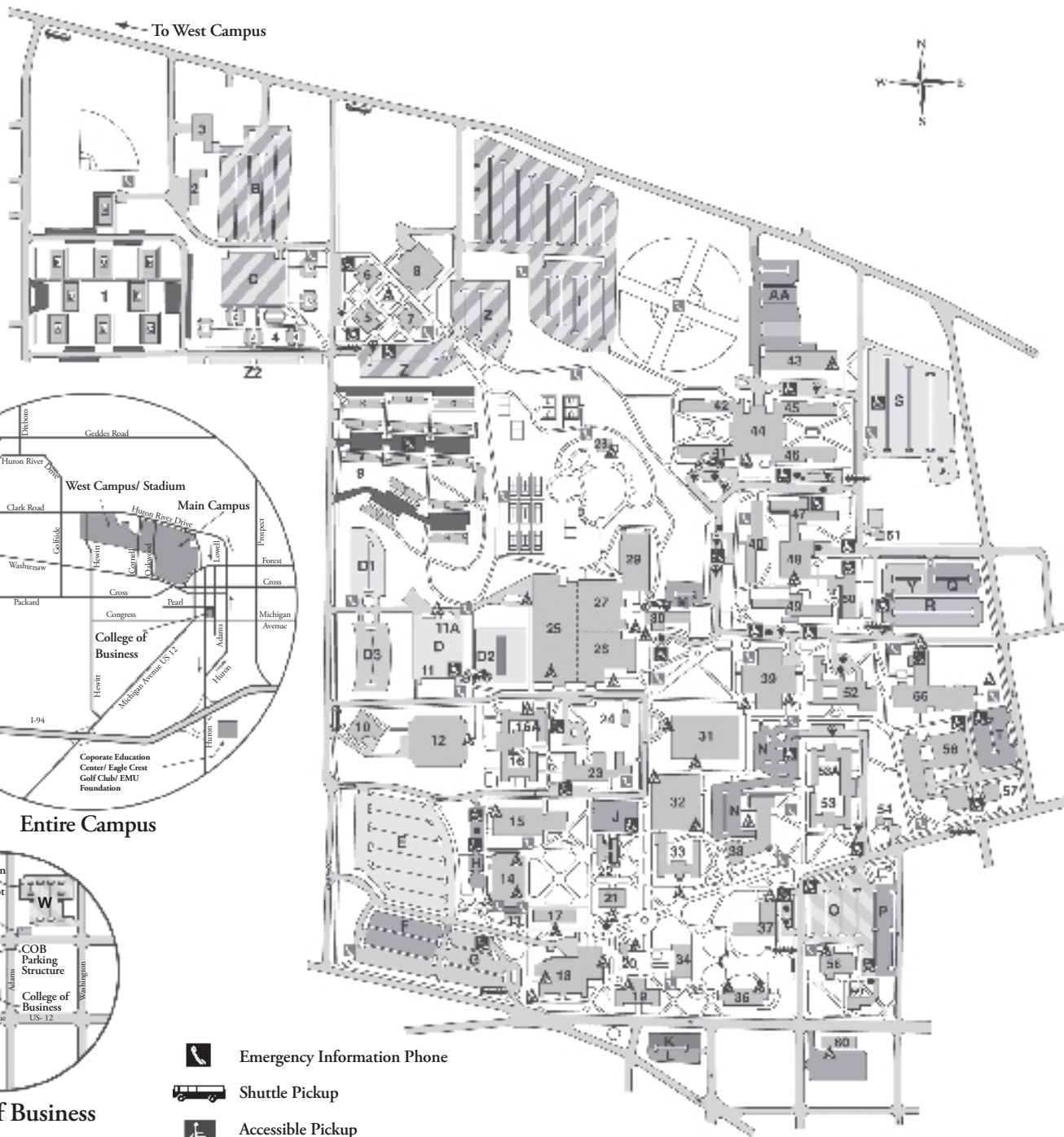
*Y	Ford Lot C (\$1 per hour)
*G	McKenny Lot B (\$1 per hour)
K	Normal Street Lot B (special permit required)
*O	Pease Lot (\$3 entry)
AA	Physical Plant Parking
A	Rynearson Lot (Free 6 a.m. to 6 p.m., M-F only)
*W	Washington Street Lot (\$1 per hour)
*D3	Oakwood Paid Lot (\$1 per hour)

Residence Hangtag Parking Lots

C	Hoyt Lot
Z	Mayhew Lot 1
I	North Campus Lot 1
B	North Campus Lot 2

**All University meters
enforced
7 a.m. to 10 p.m.
Monday through Friday
Lot signs take
precedence**

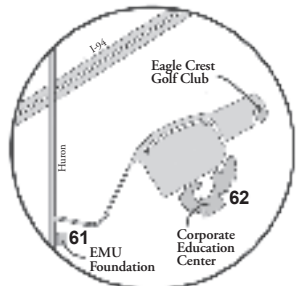
* Parking rates subject to change.



Entire Campus












College of Business



Corporate Education Center,
Golf Course and
EMU Foundation

-  Emergency Information Phone
-  Shuttle Pickup
-  Accessible Pickup
-  Accessible Building
-  Parking Meters (\$1 per hour)
-  Service Parking
-  Motorcycle Parking

- | | |
|---|---|
|  STAFF/FACULTY PARKING |  COMMUTER/STAFF/FACULTY/RESIDENCE HALL PARKING |
|  STAFF/FACULTY PARKING
<small>Special permit required</small> |  PAID GUEST PARKING
<small>Fee required</small> |
|  FAMILY HOUSING RESIDENT PARKING |  COMMUTER/GUEST/FACULTY/STAFF PARKING
<small>Fee required for guest parking</small> |
|  COMMUTER PARKING |  COMMUTER/GUEST/FACULTY/STAFF PARKING
<small>Free 6 a.m. - 6 p.m. only</small> |
|  COMMUTER/STAFF/FACULTY PARKING | |

EASTERN MICHIGAN UNIVERSITY™