## General University Information

Click on a link to be taken to the entry below.

- Academic Year
- 2009-2010 University Calendar
- 2010-2011 University Calendar
- Mission Statement
- University Creed
- University Profile and History
- Accreditations


## 2009-2010 University Calendar

Fall Semester 2009

Sept. 5, Sat.

Sept. 6-7, Sun., Mon.
Sept. 5-8, Sat., Sun., Mon., Tues.

Sept. 9, Wed.

Nov. 24, Tues. by 10 PM

Nov. 25, Wed.

Nov. 26-29 Thurs., Fri., Sat., Sun.

Nov. 30, Mon.

Dec. 11, Fri.

Dec. 12, 14-18, Sat., Mon., Tues., Wed., Thurs., Fri.

Dec. 18, Fri. by 10 PM

Dec. 19, Sat.

Dec. 20, Sun.

Dec. 21, Mon. by 8 PM

Freshmen Residence Hall Move-In Day

Upperclass Residence Hall Move-In Day
Freshmen Orientation

Classes Begin

Residence Halls Close

No Classes - University Open
Thanksgiving Recess - University Closed

Classes Resume

Last Day of Classes

Final Examinations

Residence Halls Close

Close of Fall Semester

Commencement

Grade Submission Deadline

Winter Semester 2010

Jan. 5, Tues.

Jan. 6, Wed.

Move-In Day and Winter Orientation

Classes Begin

Jan. 18, Mon.

Feb. 26, Fri. by 10 PM

March 1-March 7, Mon., Tues., Wed., Thurs., Fri., Sat., Sun.

March 8, Mon.

April 2-4, Fri., Sat., Sun.

April 16, Fri.

April 17, 19-23, Sat., Mon., Tues., Wed., Thurs., Fri., Sat.

April 23, Fri. by 10 PM

April 24, Sat

April 25, Sun.

April 26, Mon. by 8 PM

MLK Jr. Day - No Classes; Campus-Wide Celebration

Residence Halls Close

Winter Recess - No Classes; Campus Open

Classes Resume

Spring Recess - University Closed; Library Open

Last Day of Classes

Final Examinations

Residence Halls Close

Close of Winter Semester

Commencement

Grade Submission Deadline

## Spring Session 2010

| May 2, Sun. | Move-In Day |
| :--- | :--- |
| May 3, Mon. | Classes Begin |
| May 31, Mon. | Memorial Day - University Closed |
| June 14, Mon. | Last Day of Classes - 6 Week |
| June 23, Wed. | Last Day of Classes - 7_ Week |
| June 23, Wed. by 10 PM | Residence Halls Close Exams will be held during the last scheduled class session |
| June 25, Fri. | Close of Spring Semester |
| June 25, Fri. by 8 PM | Grade Submission Deadline |

Summer Session 2010

| June 27, Sun. | Move-In Day |
| :--- | :--- |
| June 28, Mon. | Classes Begin |

July 4, Mon.
Aug. 9, Mon.

Aug. 18, Wed.
Final Exams will be held during the last scheduled class session

Aug. 18, Wed. by 10 PM
Aug. 19, Thurs.
Aug. 24, Tues. by 5 PM

Last Day of Classes - 7_ Week
Independence Day - University Closed
Last Day of Classes - 6 Week

Residence Halls Close
Close of Summer Semester

Grade Submission Deadline

## 2010-2011 University Calendar

## Fall Semester 2010

Sept. 4, Sat.

Sept. 5-6, Sun., Mon.
Sept. 4-7, Sat., Sun., Mon., Tues.
Sept. 8, Wed.
Nov. 23, Tues. by 10 PM
Nov. 24, Wed.
Nov. 25-28, Thurs., Fri., Sat., Sun.

Nov. 29, Mon.
Dec. 10, Fri.
Dec. 11, 13-17, Sat., Mon., Tues., Wed., Thurs., Fri.
Dec. 17, Fri. by 10 PM
Dec. 18, Sat.
Dec. 19, Sun.
Dec. 21, Tues. by 8 PM

Freshmen Residence Hall Move-In Day
Upperclass Residence Hall Move-In Days
Freshmen Orientation

Classes Begin

Residence Halls Close
No Classes - University Open
Thanksgiving Recess - University Closed

Classes Resume

Last Day of Classes
Final Examinations

Residence Halls Close

Close of Fall Semester

Commencement
Grade Submission Deadline

| Jan. 3, Mon. | University Closed |
| :--- | :--- |
| Jan. 4, Tues. | Move-In Day and Winter Orientation |
| Jan. 5, Wed. | Classes Begin |
| Jan. 17, Mon. | MLK Jr. Day - No Classes; Campus-Wide <br> Celebration |
| Feb. 25, Fri. by 10 PM | Residence Halls Close |
| Feb. 28-March 6, Mon., Tues., Wed., Thurs., Fri., Sat., | Winter Recess - No Classes; Campus Open |
| Sun. | Classes Resume |
| March 7, Mon. | Last Day of Classes |
| April 12, Tues. | Final Examinations |
| April 13-19, Wed., Thurs., Fri., Sat., Mon., Tues. | Commencement |
| April 16, Sat. | Residence Halls Close |
| April 19, Tues. by 10 PM | Close of Winter Semester |
| April 20, Wed. | Grade Submission Deadline |

## Spring Session 2011

| May 1, Sun. | Move-In Day |
| :--- | :--- |
| May 2, Mon. | Classes Begin |
| May 30, Mon. | Memorial Day - University Closed |
| June 13, Mon. | Last Day of Classes - 6 Week |
| June 21, Tues. | Last Day of Classes - 7_ Week |
| June 21, Tues. by 10 PM | Residence Halls Close Exams will be held during the last scheduled class session |
| June 22, Wed. | Close of Spring Semester |
| June 23, Thurs. by 5 PM | Grade Submission Deadline |

## Summer Session 2011

| June 26, Sun. | Move-In Day |
| :--- | :--- |
| June 27, Mon. | Classes Begin |
| July 4, Mon. | Independence Day - University Closed |
| Aug. 8, Mon. | Last Day of Classes - 6 Week |
| Aug. 16, Tues. | Last Day of Classes - 7_ Week |
| Aug. 17, Wed. by 10 PM | Residence Halls Close Exams will be held during the last scheduled class session |
| Aug. 17, Wed. | Close of Summer Semester |
| Aug. 22, Mon. by 5 PM | Grade Submission Deadline |

## 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


## Eastern Michigan University Creed

We believe the Integrity of our work and the Respect we show for our fellow students, faculty, alumni and staff are an integral part of our ongoing Education. We believe that the Relationships we have and those we continue to develop will support us as we learn and grow together as a community.

## 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 Continuing Education.

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, Media and Theatre Arts
- Department of Computer Science
- Department of Economics
- Department of English Language and Literature
- 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
- Department of Women's and Gender Studies
- Department of World Languages


## College of Business

(Accredited by the Association to Advance Collegiate Schools of Business)

- Department of Accounting and Finance
- Department of Computer Information Systems
- Department of Management
- Department of Marketing


## College of Education

(All professional educator preparation programs of EMU are accredited by the National Council for the Accreditation of Teacher Education and approved by the Michigan Department of Education.)

- Department of Leadership and Counseling (community, college and school counseling programs accredited by the Council for Accreditation of Counseling and Related Educational Programs)
- Department of Special Education (speech-language pathology program accredited by the American SpeechHearing Association; hearing impaired program accredited by the Council on Education for the Deaf)
- Department of Teacher Education (accredited by the National Council for the Accreditation of Teacher Education)


## College of Health and Human Services

- School of Health Promotion and Human Performance (athletic training accredited by the Commission on Accreditation of Allied Health Education Programs and the Joint Review Committee on Education Planning and Athletic Training; health education accredited by the Michigan Department of Education/National Council for the Accreditation of Teacher Education; orthotics and prosthetics accredited by the National

Commission on Orthotics and Prosthetics Education; physical education accredited by the National Association of Sport and Physical Education/National Council for the Accreditation of Teacher Education)

- School of Health Sciences (clinical laboratory sciences program accredited by the National Accreditation Agency for Clinical Laboratory Sciences; occupational therapy accredited by the Accreditation Council for Occupational Therapy Education; dietetics accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association)
- School of Nursing (accredited by the Commission on Collegiate Nursing Education)
- School of Social Work (accredited by the Council on Social Work Education)


## College of Technology

- School of Engineering Technology (construction management accredited by the American Council for Construction Education; computer-aided design, manufacturing technology and polymers and coatings technology accredited by the National Association of Industrial Technology; interior design accredited by the Foundation for Interior Design Education and Research)
- School of Technology Studies (aviation management, communication technology and industrial distribution accredited by the National Association of Industrial Technology; hospitality management program accredited by the Council on Hotel, Restaurant and Institutional Education; legal assistant [paralegal studies] program accredited by the American Bar Association; network and information technology administration, marketing education, technology education - folio approved by the National Council for Accreditation of Teacher Education/International Technology Educational Association/Council on Technology Teacher Education)
- Military Science and Leadership


# The Undergraduate Experience - Admissions 

Click on a link to be taken to the entry below.

- Undergraduate Policies and Information
- Post-Baccalaureate Academic Options


## 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 freshman and transfer level to the University. Secondary 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 or GED test scores and/or official college transcripts and a nonrefundable application fee of \$30 for a mailed application or $\$ 20$ for an online application. Required supporting documentation may vary depending on the category of admission. All undergraduates who have previously registered for coursework at another college or university are required to submit an official transcript, whether the courses were completed or not, from each college, university or other postsecondary school attended.

Applications and all supporting documents become the property of Eastern Michigan University and will not be returned.

## Freshman Applicants

Freshman applicants entering college for the first time must submit official high school transcripts with grades posted through at least 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. For applicants who are admitted while still in high school, an official transcript showing proof of graduation is required prior to the student's enrollment at EMU. Evidence of graduation will be required after admission (if the applicant is still in high school). Evidence of graduation or the General Educational Development (GED) scores 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 scores. 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 21-23 years of age and who have a high school diploma or GED but have not attempted college work previously must submit an official high school transcript showing proof of graduation or GED test scores. Nontraditional applicants are not required to submit ACT or SAT scores. Applicants who are 24 years or age or older must submit evidence of high school graduation, a diploma or GED scores. Nontraditional students may be required to take selected tests for advising and course placement. Applications are available on the Admissions web site ( www.emich.edu/admissions/apply).

## Veterans

Applicants who have have completed a minimum of 180 days of service, 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 an applicant has attempted college work since release from service, or while serving, the applicant will be reviewed as a transfer student and must submit official transcripts from all institutions the student has previously attended.

## Re-enrollment

Former EMU students desiring to re-enroll at EMU after an absence of two years or more should request an application from 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 for re-enrollment online.

A student who has a past due obligation to the University must clear the obligation through the Student Accounting Office, 201 Pierce Hall, before being 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 Admissions. Students who have earned a bachelor's degree at another institution after leaving EMU are not eligible to re-enroll, and should instead apply for admission to a second bachelor's or graduate program at EMU.

If a student have been academically dismissed from EMU, 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. A guest student assumes full responsibility for determining whether or not the courses selected at EMU will apply to his/her program of study. In addition, guest students are responsible for contacting the EMU academic department in which they desire to take a course to ensure that the course is available and that the student meets all necessary requirements to register for the course. 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 at www.emich.edu/admissions/apply. Guest
applicants who wish to attend EMU for more than one term must submit a new guest application and application fee for each term. For guest application purposes, the spring and summer semesters are considered one term, and require only one application and fee. A guest applicant who possesses 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 an official high school transcript, obtain high school and parental approval, and meet current academic eligibility requirements for the chosen program. Once admitted, students pursuing dual enrollment must meet with EMU's Academic Advising Center to register for classes.

## International Student Applicants

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

1. A completed application for admission.
2. Official documents or 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, international 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, which is available at www.emich.edu/admissions
Undergraduate international students' English proficiency requirements are listed under the Department of World Languages .

For answers to your questions about admission to Eastern Michigan University as an international student, call 734.487.0205 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 World Languages. 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) To be determined
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
Graduate TWE 4
*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.

Students at the 400 or 500 level of ESL may take other courses in the University at the same time.
When undergraduate students have successfully completed the required ESL courses, their admission status will be updated to allow students to register for non-ESL courses.

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 ESL 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

## Applications

Applications and all supporting documents become the property of Eastern Michigan University and will not be returned. Applicants are not admitted to the Graduate School and/or academic programs 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 as a non-degree student.

## Post-Baccalaureate Teacher Preparation Programs

The Post-Baccalaureate Teacher Preparation program is designed for individuals who have a bachelor's degree or higher and want to obtain a teaching certificate. 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 a group advising appointment. Candidates with a cumulative undergraduate GPA below 2.5 should apply as a second bachelor's candidate (see below). Regardless of undergraduate GPA, all applicants seeking teacher certification should submit an application for undergraduate admission.

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. Applicants must submit passing scores on the Michigan Test for Teacher Certification (MTTC) - Basic Skills Tests prior to admission.

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 the 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.

## Post-Baccalaureate Certificate

EMU offers post-baccalaureate certificate programs in music therapy and African studies. Applicants must submit an application for undergraduate admission and official transcripts from all colleges, universities or other postsecondary schools attended. Applicants must show proof of a bachelor's degree or equivalent from an accredited college or university. In addition, applicants to the music therapy equivalency certificate program must complete a personal interview with the coordinator of the music therapy program.

Additional information regarding the music therapy certificate is available from the department of Music and Dance. Additional information regarding the African studies certificate is available from the African-American Studies department.

## 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. Applicants are required to submit 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.
- Each candidate must satisfy all school/college/department and program requirements for the second degree.
- Only EMU alumni can receive additional majors or minors 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 complete a minimum of 24 credit hours toward their second bachelor's degree before applying for secondary admission to the Post-Baccalaureate Teacher Preparation program. These 24 hours must be approved by the College of Education. In addition, candidates must complete their second bachelor's degree before student teaching.
- Students whose prior undergraduate GPA was 2.5 or above, and who wish to pursue Teacher Certification, must contact the Teacher Certification Office in the College of Education (734.487.0275). The Second Bachelor Program does not process applications for certification programs.
Each program is individually designed and must be approved by appropriate faculty advisers as well as the Second Bachelor Program.


## Non-Degree Admission

Students who have completed a bachelor's degree or equivalent at an accredited college or university and are not seeking to complete an additional degree may apply for non-degree admission. Applicants with a cumulative undergraduate GPA of 2.5 or higher must submit an application for graduate admission, application fee, and official transcripts from all colleges, universities and other postsecondary schools attended. Such applicants are eligible to take both graduate and undergraduate courses. Applicants with a cumulative undergraduate GPA of 2.0-2.5 must submit an application for undergraduate admission, application fee, and official transcripts from all colleges, universities and other postsecondary schools attend. Such applicants are eligible to take undergraduate courses.

## Teacher Certification

Students who possess a bachelor's degree and who are seeking teacher certification should contact the Teacher Certification Office in the College of Education (734.487.0275) for an advising appointment. A candidate 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.

# The Undergraduate Experience - Transfer Information 

Click on a link to be taken to the entry below.

- Community College Relations
- The MACRAO Agreement
- Articulation Agreements


## 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 community colleges to enhance the educational transition process for community college students. Our purpose is to promote a seamless transfer process that minimizes the loss of academic credit and time in obtaining a bachelor's degree. Many EMU academic programs have signed program articulation agreements with community colleges, that ensure the transfer of credit from an associate degree program to a bachelor's degree program. 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, makes it easier to select courses that satisfy the program and institutional requirements at both schools. 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/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 EMU Transfer Services to facilitate course credit equivalency for transfer students;
- Providing articulation information to the EMU Advising Centers;
- Collaborating with the Admissions Office in sponsoring Community College transfers events and activities; Please also refer to the transfer website for more details on transferring to EMU.


## The MACRAO Agreement

Eastern Michigan University is a signer 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 or course.

This agreement applies only to general education and does not exempt community college students from meeting all curriculum and graduation requirements.

## Articulation Agreements

Articulation agreements between Eastern Michigan University and certain 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 online at www.emich.edu/ccr.

The following colleges have program articulation agreements with EMU:

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Concordia University
Physics Major (Secondary Education - Physics)
Delta Community College
Business, B.B.A.
Paralegal Studies, B.S.
Technology Management, B.S.
Grand Rapids Community College
Technology Management, B.S.
Henry Ford Community College
Applied Technology, B.S.
Business, B.B.A.
Electronic Engineering, B.S.
Elementary Education, B.S.
Exercise Science, B.S.
Health Administration, B.S
Hotel Restaurant Management, B.S.
Industrial Distribution, B.S.
Information Assurance, B.S.
International Business, B.B.A.
Nursing Completion, B.S.N.
Paralegal Studies, B.S.
Public Safety Administration, B.S.
Secondary Education, B.S.
Technology Management, B.S.
Jackson Community College
Nursing Completion, B.S.N.
Social Work, B.S.W.
Technology Management, B.S.
Lansing Community College
Business, B.B.A.
Elementary Education, B.S.
Nursing Completion, B.S.N.
Logan University
Biology/Pre-Chiropractic
Macomb Community College
Applied Technology, B.S.
Business, B.B.A.
Computer Information Systems, B.B.A.
Paralegal Studies, B.S.
Technology Management, B.S.
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Monroe County Community College
Applied Technology, B.S.
Business, B.B.A.
Computer Information Systems, B.B.A.
Construction Management, B.S.
Hotel, Restaurant Management, B.S.
Nursing Completion, B.S.N.
Social Work, B.S.W.
Technology Management, B.S.
Mott Community College
Applied Technology, B.S.
Northwestern State Community College (Ohio)
Historic Preservation, minor
Oakland Community College
Applied Technology, B.S.
Business, B.B.A.
Construction Management, B.S.
Nursing Completion, B.S.N.
Paralegal Studies, B.S.
Public Safety Administration, B.S.
Social Work, B.S.W.
Technology Management, B.S.
Owens Community College (Ohio)
Applied Technology, B.S.
Business, B.B.A.
Dietetics, B.S.
Schoolcraft College
Applied Technology, B.S.Aviation Management, 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.
Public Safety Administration, B.S.
Social Work, B.S.W.
Technology Management, B.S.
St. Clair College (Canada)
Applied Technology, 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.
Exercise Science, B.S.
Health Administration, B.S.
Hotel and Restaurant Management, B.S.
Industrial Distribution, B.S.
Nursing Completion, B.S.N.
Public Safety Administration, B.S.
Secondary Education, B.S.
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Social Work, B.S.W.
Technology and Design Education, B.S.
Technology Management, B.S.
Wayne County Community College District
Applied Technology, B.S.
Business, B.B.A.
Nursing Completion, B.S.N.
Public Safety Adminstration.B.S.
Social Work, B.S.W.
Technology Management, B.S.

## The Undergraduate Experience - Academics

Click on a link to be taken to the entry below.

- Academics
- Degrees
- Majors/Minors
- Degree Requirements
- Graduation Application
- Alternative Methods for Earning University Credit
- Alternative Credit Options
- CLEP Credit
- Advanced Placement Credit
- Prior Learning Assessment
- Academic Advising Services
- Academic Advising Center
- College Advising Center
- Individualized Studies Program


## 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 World Languages, College of Arts and Sciences; business education (B.B.E.) - see School of Technology Studies, 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 School 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 (M.A.), master of science (M.S.), master of fine arts (M.F.A.), master of business administration (M.B.A.), master of public administration (M.P.A.), master of business education (M.B.E.), master of individualized studies (M.I.S.), master of social work (M.S.W.), master of nursing (M.N.), master of occupational therapy (M.O.T.) and master of liberal studies (M.L.S.). In addition, there is a specialist in arts degree (S.A.) and doctorates in educational leadership (Ed.D.), psychology (Psy.D.) and technology (Th.D.). All are listed in the graduate catalog.

Bachelor's degree programs require 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 at least 20 credit hours with the following exceptions:

1. A student in the elementary teaching curriculum may present three minors of at least 20 credit hours - each of which is a subject field 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 toward 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 additional 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.
A student 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, college dean and a Provost's Office representative.

Subject limitation: No more than 60 hours in any one academic subject 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 only the minimum number of hours in activity courses required for their respective majors to the minimum of 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 a 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 or 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 the terms described 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 degrees and/or certificates 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 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 $\$ 95$ graduation fee to the Cashier's Office, 201 Pierce Hall, or the fee may be 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 filing a new application for graduation for the subsequent graduation period. 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 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 earn at least a three on the corresponding Advanced Placement tests, will be granted at least two hours of credit in each subject area in which they have earned that score. The Advanced Placement Credit Available by Departments table lists departments and courses for which credit can be earned.
2. 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.
3. 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.
4. 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:

- Students must have been admitted to Eastern Michigan University.
- Credit normally will not be awarded for any course for which a 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.
- Passing a comprehensive examination or equivalent activity in the course for which EMU validation is requested.
The following procedures must be followed to earn 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, 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 for 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 the student's performance and indicates $\mathrm{P} / \mathrm{F}$ on the permission form, a copy of the written examination or explanation of the activity as well as the instructors'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.
8. 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 for assessing a student's previous learning. Credit may be awarded for general education or for courses in majors, minor sor 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.

## CLEP Credit Available by Departments

| Department | Exam/Subject | Minimum <br> Score | Credit Awarded |
| :--- | :--- | :---: | :--- |
| Accounting and <br> Finance | Accounting, Principles of | 50 | ACC240 (3 hrs) |
| Biology | Biology | 50 | BIOL105 (4 hrs) |
|  |  | 60 | BIOL110 (5 hrs) |


| Chemistry | Chemistry | 50 | CHEM121 (3 hrs) |
| :---: | :---: | :---: | :---: |
|  |  | 63 | CHEM121 (3 hrs), CHEM122 (1 <br> hr ) and CHEM123 (3 hrs) |
| Computer Information Systems | Information Systems and Computer Applications | 50 | IS215 (3 hrs) |
| Economics | Macroeconomics, Principles of | 50 | ECON201 (3 hrs) |
|  | Microeconomics, Principles of | 50 | ECON202 (3 hrs) |
| English | Freshman College Composition* | 50 | ENGL121 (3 hrs) |
|  |  | 65 | ENGL121 (3 hrs) and ENGL225 (3 hrs) |
|  | English Literature* | 50 | LITR100 (3 hrs) |
|  |  | 65 | LITR100 (3 hrs) and LITR101 (3 hrs) |
|  | American Literature* | 50 | LITR 100 (3 hrs) |
|  |  | 65 | LITR100 (3 hrs) and LITR101 (3 hrs) |
|  | Analyzing \& Interpreting Literature* | 50 | LITR100 (3 hrs) |
|  |  | 65 | LITR100 (3 hrs) and LITR101 (3 hrs) |
|  | English Composition with essay | 50 | ENGL120 (3 hrs) |


Humanities 50

Foreign Languages French Language 50
$\begin{array}{lc} & 62 \\ \text { German Language } & 50\end{array}$
panish Language

History
U.S. History I
U.S. History II 50

Western Civilization I

Western Civilization II

Management
Management, Principles of

ENGL120 (3 hrs) and ENGL121 (3 hrs)

LITRBAS (3 hrs)

LITRBAS (3 hrs) and LITRBAS (3 hrs)

## FRNH121 (3 hrs)

FRNH121/122 (6 hrs)

GERN121 (3 hrs)

GERN121/122 (6 hrs)

SPNH121 (3 hrs)

SPNH121/122 (6 hrs)

HIST123 (3 hrs)

HIST124 (3 hrs)

HIST101 (3 hrs)

HIST102 (3 hrs)

MGMT000 (3 hrs)

LAW293 (3 hrs)

MKGT000 (3 hrs)

| Mathematics | College Algebra | 50 | MATH105 (3 hrs) |
| :--- | :--- | :---: | :--- |
| Precalculus | 50 | MATH112 (3 hrs) |  |
| Political Science | American Government | 50 | PLSC112 (3 hrs) |
| Psychology | Psychology, Introductory |  |  |
| Sociology | Sociology, Introductory | 50 | PSY101 (3 hrs) |
| * essay required |  | 50 | SOCL105 (3 hrs) |

## Advanced Placement Credit Available by Departments

| Department | Exam/Subject |
| :--- | :--- |
| Art | History of Art |
|  | Studio Art: 2-D or 3-D Design, or drawing <br> portfolio |
|  | Note: An additional three credit hours may be <br> awarded to art majors and minors through <br> departmental evaluation of art portfolio. |
|  |  |

Minimum
Score
3 ART101 (3 hrs)

4
ART107 (3 hrs)

ART179 (3 hrs) or ART379
(3 hrs)

3 BIOL224 (4 hrs)

3 BIOL110 (5 hrs)

CHEM121 (3 hrs) and CHEM122 (1 hr)

CHEM121 (3 hrs),
4 CHEM122 (1 hr) and CHEM123 (3 hrs)

CHEM121 (3 hrs),
5 CHEM122 ( 1 hr ) CHEM123
(3 hrs) and CHEM124 (1 hr)

Computer Science

Computer Science A

Computer Science AB

Macroeconomics

Microeconomics

French Language or French Literature

4

3
COSC111 (3 hrs)

COSC111 (3 hrs) and COSC211 (3 hrs)

3 ECON201 (3 hrs)

3 ECON202 (3 hrs)

3 ENGL121 (3 hrs)

ENGL121 (3 hrs) and ENGL225 (3 hrs)

3 LITR100 (3 hrs)
$4 \quad$ LITR100 (3 hrs) and LITR101 (3 hrs)

FRNH121 (5 hrs)

FRNH122 (5 hrs)

German Language

Latin: Vergil or Literature

Spanish Language or Spanish Literature
Geography Human Geography

History United States History

European History

World History

Mathematics Calculus AB

Calculus BC

Statistics

3

4

4

3

4

3

3

4

4

3

4

3

3

3

3 LATN121 (5 hrs)
$3 \quad$ HIST101 (3 hrs)

MATH120 (4 hrs) and
MATH121 (4 hrs)
GERN121 (5 hrs)

GERN122 (5 hrs)

LATN122 (5 hrs)

SPNH121 (5 hrs)

SPNH122 (5 hrs)

## GEOG179 (3 hrs)

HIST123 (3 hrs)

HIST123 (3 hrs) and HIST124 (3 hrs)

HIST101 (3 hrs) and HIST102 (3 hrs)

HIST109 or HIST110 (3 hrs)

HIST109 (3 hrs) and HIST1 10 ( 3 hrs )

MATH120 (4 hrs)

MATH170 (3hrs)

Music and Dance

Physics B

Physics C

Political
Science

Psychology Psychology

Sociology Statistics

3 MUSC100 (3 hrs)

3 PHY221 (4hrs)

PHY221 (4 hrs) and PHY222
(4 hrs)

PHY223 (5 hrs) and PHY224
(5 hrs)

3 PLSC112 (3 hrs)

3 PLSC211 (3 hrs)

3 PSY101 (3 hrs)

3 SOCL250 (3 hrs)

## Prior Learning Assessment

Academic standards for portfolio-assisted Prior Learning Assessment:

- 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:

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 (First-Year 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 are:

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;
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.

## The Undergraduate Experience - Financial Aid \& Information

Click on a link to be taken to the entry below.

- Financial Assistance
- Academic Scholarships
- Federal and State Financial Aid
- Financial Information and Student Accounts
- Tuition and Fees
- Tuition and Fee Payment
- Program Adjustment Fee
- Credit Adjustment for Total Withdrawal
- The General Fee
- The Program Fee
- Student Union Fee
- The Technology Fee
- Service Fees
- Student Expenses


## 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 (see chart below)

- New freshmen who are admitted by Mar. 1 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. Must be admitted by Mar. 1 for the fall semester (or May 15 for transfer).

Recognition of Excellence Scholarship - Four-year award that pays $\$ 2,000$ per year. High school seniors must
have a 3.5 GPA with a 21 ACT or 1000 SAT. Minimum 3.3 for renewal. Must be admitted by Mar. 1 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-ofstate tuition differential. High school seniors must have a 3.0 GPA with a 20 ACT or 950 SAT. Minimum 3.0 for renewal. Must be admitted by Mar. 1 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 $\$ 1,500$ per year. Requires 12 credit hours enrollment each semester and 2.75 GPA to renew.
Leader Award - One-year award of $\$ 1,000$. Continuing EMU students must have a GPA of 2.0 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.
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 or 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.

## Undergraduate Academic Scholarships

| Awarded | Minimum <br> Requirements | Amount | Freshman <br> Housing <br> Requirement | Renewal <br> Criteria | Deadline |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Presidential Scholarship | Participate in the <br> Presidential <br> Scholarship <br> Competition (PSC) | 30 credit hours per <br> year of in-state <br> tuition, housing, <br> food allowance and <br> mandatory fees 4 <br> years | Residence halls <br> for <br> first two years | Cumulative <br> GPA <br> 15 credit <br> hours each <br> semester | November 20 |


|  | School GPA and 25 ACT/1150 SAT <br> Transfer Student <br> 3.7 College GPA and 30 transferable credit hours |  |  | hours each semester | or May 15 for transfer students |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Recognition of <br> Excellence <br> Scholarship | Freshman <br> 3.5 High School GPA and <br> 21 ACT/1000 SAT <br> Transfer Student <br> 3.5 College GPA and 30 transferable credit hours | \$2,000 per year <br> 4 years | No | 3.3 <br> Cumulative <br> GPA | Must be admitted to EMU by March 1 for fall semester or May 15 for transfer students |
| National Scholars Program | Freshman <br> 3.0 High School GPA and 20 ACT/950 SAT <br> Transfer Student 3.0 College GPA | 30 credit hours per year of out-of-state tuition differential 4 years | No | 3.0 <br> Cumulative <br> GPA | Must be admitted to EMU by March 1 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 | $\begin{aligned} & 2.5 \\ & \text { Cumulative } \\ & \text { GPA } \end{aligned}$ |  |
| Eagle Scholarship | 3.0 High School GPA | \$1,500 per year <br> 4 years | No | 2.75 <br> Cumulative GPA 12 credit hours per semester | Must be admitted to EMU by March 1 |
| Leader Award | 2.5 Cumulative GPA for continuing EMU students. Volunteer at EMU or in the community | $\begin{aligned} & \$ 1,000 \\ & 1 \text { year } \end{aligned}$ | No |  | None |
| 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/Theatre Arts Service Award | See an adviser from the Communication and Theatre Arts Department for more info. |  |  |  |  |


| Army and Air Force | Contact the ROTC <br> office at 734.487 .1020 <br> for more info. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| ROTC Scholarship |  |  |  |  |

## 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 at www.fafsa.ed.gov beginning each January. 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 1 or earlier. To meet this deadline, applications should be filed by February 15.

## 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, a student 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;
- 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 2008-2009 semesters:

| On-campus | $\$ 17,590$ |
| :--- | :---: |
| Off-campus | $\$ 17,590$ |
| Commuter | $\$ 13,070$ |

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 $\$ 4,731$ 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 Federal Pell Grants.
Federal Academic Competitiveness Grant (ACG) - $\$ 750$ for first-year and $\$ 1,300$ for second-year undergraduate students. To be considered, a student must have completed a rigorous secondary (high school) program of study after Jan. 1, 2006, and 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 3.0 GPA, and be Pell Grant eligible and U.S. citizens.
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 Federal Pell Grants.
Federal Subsidized and Unsubsidized Loan Program - Loans are provided through the U.S Department of Education.
Following is the maximum annual amount a dependent student may borrow, based on academic level:

| Freshman | $\$ 5,500$ |
| :--- | :--- |
| Sophomore | $\$ 6,500$ |
| Junior/Senior | $\$ 7,500$ |

## 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
- Federal Parent (PLUS) Loans

Federal and state college work-study checks are issued directly to students for hours worked on a bi-weekly basis.
Students will be issued refunds through their EagleOne accounts for aid applied to an 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;
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 emergencies. 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 income tax returns 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 $\$ 43$ for each semester. This service fee is assessed at the time the student registers.

An additional late registration fee of $\$ 120$ 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 mail 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 500level or above.

Off-campus tuition rates are the same as on-campus tuition rates (online courses, which are offered at in-state tuition rates, cost an additional $\$ 43$ per credit hour).

Tuition for auditing classes is the same as for-credit classes.
2008-2009 Michigan and Ohio resident rates, per credit hour:
Undergraduate courses up to 499
$\$ 229.50$

Graduate courses lower level (500-699)
$\$ 401.50$

Doctoral assessment upper level (700 and above)
$\$ 462.00$
2008-2009 nonresident rates, per credit hour:
Undergraduate courses up to $499 \quad \$ 676.00$
Graduate courses lower level (500-699) \$791.50
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 trainees, teachers, professors or research scholars);
- 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, students who enroll in the University as nonresidents shall continue to be so classified throughout their attendance as students, unless and until they demonstrate that their 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:
8. Voting or registration for voting.
9. Employment in any position normally filled by a student.
10. The lease of living quarters.
11. A statement of intention to acquire a domicile in Michigan.
12. Automobile registration, driver's license.
13. Birth records or other public 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 email 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 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 $\$ 29$ 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 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 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 $\$ 29$ is assessed with the first installment billing and a late payment fee of $\$ 36$ 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.edu/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 19 th 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 an $\$ 11$ 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 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.edu/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 indicate whether the permit will be mailed to you or whether you must pick it up in person.

Motor vehicle rates:

## Commuter Permits (per semester)

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

## Resident Permits (per semester)

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.
For 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 freshman student, Michigan or Ohio resident, taking a total of 30 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 $\$ 7,590$
Books and academic supplies \$900
Residence hall room and board \$7,220

Estimated additional costs of personal, transportation and miscellaneous expenses $\$ 1,880$
Personal expenses include clothing allowance, medical/dental expenses, recreation, personal hygiene articles. Out-ofstate 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 $\$ 17,590$
Off-campus student $\$ 17,590$

Commuter student $\$ 13,070$

The above budgets are based on financial aid average costs for 2008-2009.

## The Undergraduate Experience - Registration \& Grading

Click on a link to be taken to the entry below.

- Registration and Grading
- Academic Year
- Academic Course Load
- Auditing Courses
- Credit Hours/Class Levels/Course Numbers
- Prerequisites
- Final Examinations
- Grades
- Pass/Fail
- Credit/Noncredit Grading
- Incomplete
- Grade Changes
- Repeats
- Grade Reports
- Grade Point Average (GPA
- Academic Probation and Dismissal
- Drops/Withdrawals from Individual Classes
- Withdrawals from the University


## 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 located on the General Information page of this catalog.

Evening courses and continuing education courses permit scheduling options within each semester or session. Twoweek 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. 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, 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, McKenny. These students do not register for 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 Ho |
| :--- | :--- |
| 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 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 Graduate School. 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 prerequisites 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 a 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 offer 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. $\mathrm{He} / \mathrm{she}$ 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, a 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 SignificanceGrade points per credithour
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 below.)

## 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 to take 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, 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 $\mathrm{CR} / \mathrm{NC}$ in the class schedule book. All students taking such courses will receive either CR or NC in place of letter grades. Neither CR nor NC will have any effect on a 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 an 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 $f$ romclass 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). The only exception to this rule will be for master's specialist and doctoral field-based research, internships and dissertation hours.

## Repeats

Students who meet the prerequisites and all other conditions for enrollment may repeat courses. All grades earned will be retained on the student's permanent record, with repeats indicated. Credit and grade point calculations for repeated courses are determined by the following rules:

## Credit Earned:

1. Unless otherwise noted in the course description, credit for any repeated course (including all attempts at EMU and transfer credit granted) will apply only once toward all degree requirements.
2. The rules below do not apply to courses (such as Independent Studies) that can be taken for credit more than once. Multiple attempts in such courses are not considered repeats, and all grades received will be used in determining the student's grade point average.
3. A student who earned a passing grade in a course or who has previously received transfer credit for the course will lose the credit if he or she subsequently retakes the course and receives an E. If a student receives
an Incomplete in the final attempt of a repeated course, the most recent earlier grade is the grade of record until the course work is completed and the I is replaced by the grade earned.

## Repeated Courses and Grade Point Average (GPA):

1. Courses that are dropped or from which a student has withdrawn are not counted as attempts for purposes of this policy.
2. If a student repeats a course up to two times (for a total of three attempts), only the last grade received will be used in determining the student's grade point average. As stated above, all course attempts with repeats indicated will remain on the permanent record, even if not used to determine the grade point average.
3. There are no restrictions on the number of times that a student may repeat a course, however, the grades earned in the third and all subsequent attempts will be used in determining the student's grade point average unless explicit permission to have previous grades for the course eliminated from the calculation is granted by the head of the department or director of the school in which the course is offered. The student must contact the department head or school director prior to the end of the semester in which the course is repeated to obtain this permission. Such permission is required for every attempt beyond the third.
4. There are no restrictions on the number of different courses that a student may repeat, however, if a student repeats more than ten different courses, grades for ALL attempts (from the first on) for the eleventh and all subsequent courses will be used in determining the student's grade point average unless explicit permission to repeat the course is granted by the Academic Standards Committee in advance. The student must contact the Academic Advising Center to request permission.
5. Such permission is required for every attempt of every course beyond the tenth. A student repeating a course may not elect a Pass/Fail grading option if the grade of record for the course is a letter grade.

## Transfer Courses as Repeats:

1. If a student has credit for a course taken at EMU with a passing grade as the grade of record and subsequently transfers an equivalent course from another institution, the transfer credit will be treated as if it were another attempt at EMU, and the rules above will be applied. The grades received in previous attempts at EMU will not be used in determining the student's grade point average provided the total number of attempts, including the transfer, does not exceed three (3) and this repeat does not exceed the limit of ten (10) repeated courses. (Note that students receive credit, but not grades for transfer courses, so no grade for the course would be used in determining the student's grade point average in this case.)
2. If the grade of record is a passing grade, but the transfer course constitutes the fourth or later attempt, or if the student has already repeated ten or more courses, the grades received at EMU will be used in determining the student's grade point average as outlined in the previous section unless explicit permission is granted by the EMU Registrar to exclude the EMU grades once the transfer credit has been posted.
3. Advance permission from the EMU Registrar is required for student who want to transfer credit for a course equivalent to a course that the student has taken at EMU and for which the grade of record is a failing grade. Note: Second admission programs and graduate programs may calculate grade point averages according to their own internal rules; for example, many specify that grades received in all attempts be used in the calculation. This policy does not apply to those admissions processes.

## 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 the student is 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 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 |  |
| :--- | :--- | :--- |
| 50-percent | 19th | Spring/Summer |
| 25-percent | 38 th | 10th |
| 0-percent | Last day before finals | 19th |
|  |  | 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 may be obtained from the academic department involved. Student employment grievance procedures may be obtained from the Career Services Center, third floor, King Hall.

## The Undergraduate Experience - Graduation

Click on a link to be taken to the entry below.

- Graduation
- Graduation Requirements
- Basic Degree Curricula
- Graduation Audit
- Commencement
- Academic Assessment
- Educational Opportunities
- Academic Service Learning
- American Humanics
- CSIE Program
- First Year Experience Programs
- Institute for the Study of Children, Families and Communities
- Celebration of Student Writing
- Diversity in the Curriculum
- ElderQuest
- Writing Across the Curriculum
- University Library
- Division of Information Technology


## Graduation

## Graduation Requirements

To graduate from Eastern Michigan University, a student must earn a bachelor of science degree, a bachelor of arts degree or one of the bachelor's degrees pertinent to the 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 a 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 $/ \mathbf{3}$ credits)
3. One course in quantitative reasoning
Area III: Perspectives on a Diverse World ( 2 courses/6 credits)
4. One course on global awareness
5. One course on U.S. diversity
Area IV: Knowledge of the Disciplines ( 8 courses $/ \mathbf{2 5}$ credits)
6. Two courses in arts with different subject codes
7. Two courses in humanities with different subject codes
8. Two courses in social sciences with different subject codes
9. 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 a combination of experiences and/or courses)
10. Self and well-being
11. Community service, citizenship and leadership
12. Cultural and academic activities and events
13. Career and professional development
14. International and multicultural experience
15. Undergraduate research

| Total credits for General Education | $\mathbf{4 0}$ credits |
| :--- | :--- |
| Minimum credits for academic major | $\mathbf{3 0}$ credits |
| Minimum credits for academic minor | $\mathbf{2 0}$ credits |
| Credits allowed for electives <br> (may change with major/minor choice) | $\mathbf{3 4 - 4 3}$ credits |
| Total minimum credits for graduation | $\mathbf{1 2 4}$ 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 students to record their expected date of graduation, legal name, student 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 which engages students in community service as a means of helping them 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 journals, books, other publications related to academic service-learning. Research opportunities are also available for faculty and students. AS-L Faculty Fellow Seminars are offered each fall and winter. Over 150 EMU faculty have participated in a semester-long weekly seminar examining academic service-learning theory, implementation and assessment. For a full list of EMU faculty trained in the ASL Faculty Fellow Seminar, please visit: www.asl.emich.edu

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

- Office of Academic Service-Learning

Campus Address: 219 Rackham Hall
Phone: 734.487.6570
Web site: www.asl.emich.edu

## Jessica 'Decky' Alexander, director

E-mail: jalexande1@emich.edu
Courses taught at EMU that include a Community Service, Citizenship and Leadership component and can be taken for Gen Ed LBC credit are:

CSIE 177L Groundwater Studies
SPCI 350L Introduction to Cognitive Impairment
SPEI 401L Programming, Methods and Curriculum for Elementary Students with Emotion Impairments SWRK 350L Generalist Social Work Practice: Organizations and Communications
WGST 230L Conversations with Girls

Sample courses taught at EMU that have included an academic service-learning component in the past are:

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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 }187
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
JRNL314 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
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SPGN251 Education of Exceptional Children
SMPI350 Introduction to Mental Retardation
SWRK403 Practice Issues with Women
SWRK420 Working With Aging People
TEDU350 Curriculum in Technology and Vocational Education

The office of Academic Service Learning also has several grant-based Outreach Programs including:

- Ypsilanti Youth Empowered to Act (YYEA)- YYEA seeks to change the way the youth voice is heard by taking action and promoting engagement and decision making in the community.
- CrossTown Theatre Troupe- CrossTown Theatre Troupe is a program designed to help stimulate the youth voice through the use of theatre.
- The B. Side: The Business Side of Youth- The B. Side developes business and professional skills and encourages creative and intelligent risk taking and instills financial independence and community responsibility in youth ages 13-20.


## American Humanics

Address: 215 Rackham
Phone: 734.487.1612
Fax: 734.487.8514
E-mail: humanics@emich.edu
Web site: www.americanhumanics.emich.edu

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 and 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 nonprofit 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: 218 Rackham Hall
Phone: 734.487.0281
E-mail: csie.info@emich.edu
Web site: www.emich.edu/csie
Facebook Group: CSIE@EMU

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) and related 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 interdisciplinary theme through academic servicelearning* (AS-L) experiences which often include community-based research projects;
- Intensive mentoring and advising by CSIE faculty and program staff to help students plan their academic careers and engage in early research experiences;
- Opportunity to learn with professionals from local industries, government organizations and non-profit agencies, through shadowing experiences, guest speaker interviews, facility tours, field work and the AS-L experiences;
- Free book loan program and of subsidized lab manuals and course supplies;
- Opportunity to satisfy general education requirements $广$ for learning beyond the classroom (LBC) through 15 hours of service and/or presenting research at the Undergraduate Symposium $\not \ddagger$ or professional meetings or conferences.
CSIE clusters are published each term in the course schedule books and online at the program website and Facebook group. 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 need a declared 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.
$\dagger$ See General Education to learn about the LBC requirements.
$\neq$ 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.

## First-Year 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

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 Wiencek, M.S., e-mail: peggy.wiencek@emich.edu

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

The Center for Community Building and Civic Engagement (CCBCE), 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, the approximately 1200 students enrolled in 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, 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 for 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 cocurricular services.

## ElderQuest

Address: 217 Rackham Hall
Phone: 734.487.0227

## E-mail: ElderQuest@emich.edu

## Web site: www.emich.edu/elderquest

The ElderQuest program provides a welcoming environment for persons 50 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 experience a coordinated approach to writing instruction that begins in their first year with ENGL 120/ENGL 121, that is supported through workshops and tutoring offered by the University Writing Center and Academic Project Center, and that is continued in their majors with the Writing-Intensive courses that are now a graduation requirement for all students. The Writing Across the Curriculum program provides the outcomes for and assesses the WI courses. It supports faculty members who teach the Writing-Intensive courses as well as faculty who use writing in both their General Education and other major courses. These faculty elect to participate in summer institutes that focus on the teaching of writing in the disciplines. Students benefit directly 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 a vital component of the University's educational mission. It houses more than one million items including books, journal subscriptions, microforms, audio visual materials and U.S. Government Documents. The library has a rapidly growing collection of state-of-the-art electronic indexes and full-text ejournals and ebooks. The library contains special collections of faculty publications, children's literature, maps, African-American history and also houses the University Archives. These extensive collections are focused to provide strong support for the instructional programs of the University. More information about the library's collections, hours, and services is available at www.emich.edu/halle.

In addition to its collections, Halle Library provides the campus with venues where people can gather to share ideas and learn including meeting/classrooms, computer labs, a 90 -seat auditorium, group study rooms, a TV studio, and the Paradox Café. The Library provides hundreds of public access computers. A unique feature of the Library is the Automated Retrieval Collection (ARC). The ARC's massive robot cranes locate and move the hundreds of bins that hold more than a half-million books, videos and other items from the Library's collection. Materials from the ARC can be in your hands within ten minutes.

Materials, including reserved reading materials assigned for use in course work, are checked-in and out on the main floor at the Circulation Desk. The Information Desk is located in the center of the first floor atrium and is the place where all library users may get assistance in using the collections and locating sources. 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.

Collections on the main floor include the references, legal reference collections and maps. The second floor contains the journals, newspapers, government documents and children's literature collections and provides space for collaborative study. The third floor contains the circulating book collection and is the Quiet Study Floor.

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. Appointments can be scheduled with individual librarians through the Information Services Office (734.487.0020, ext. 2100).

The Academic Projects Center (Halle Room 104), is a new venture offering one-to-one writing, research, and technology assistance for all EMU students. The APC is a collaboration between the University Library, Academic Technology and Computing Services, the University Writing Center, and the Writing Across the Curriculum and First Year Writing Programs. The APC offers point-of-need help with research, writing, and technology to students working on research papers and other academic projects. University Writing Center consultants, Halle Librarians, and technologists work together in the center to provide project-oriented support.

## Division of Information Technology

To learn more about all the technology services provided for students, faculty and staff, please visit the Division of Information Technology 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-Harrold Computing Lab
Address: 327 Pray-Harrold
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.

## Division of Information Technology Computer Help Desk

Address: 106 Halle Library
Phone: 734.487.2120
Web site: http://ict.emich.edu
The Division of Information Technology Computer Help Desk can assist with problems accessing EMU's Internetbased resources such as my.emich or the residence hall network (ResNet). Check the Division of Information Technology Help Desk web site for more information on protecting your computer from viruses and other malicious programs.

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my.emich Portal Account
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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, visit the my.emich web site at: http://my.emich.edu and click on "How Do I Get my user name and password."

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 Division of Information Technology 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; it is fast; and ResNet is a 10Mbit/sec Ethernet network.

To sign up for ResNet, after you arrive on campus, plug in and go through the simple registration process. For more detailed information about ResNet, visit the Division of Information Technology 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 anyone with a wireless compatible laptop computer, and a my.emich user name and password, to connect to the campus network without being "plugged in." For more details about the EMU Wireless network and responses to frequently asked questions, visit the Division of Information Technology web site at http://ict.emich.edu/wireless.

## General Education Information

Click on a link to be taken to the entry below.

- General Information
- Curriculum Categories
- Waiver, Placement and Substitutions Information
- QRChoice Category Information
- General Education Transfer Guidelines


## General Information

Director: Chris Foreman<br>E-mail: cforeman@emich.edu

Web site: http://www.emich.edu/gened
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.

The General Education Program can be found here .

## Curriculum Categories

## Effective Communication

- Communication is frequently cited as employers' number one concern with college graduates. Education in speaking and writing is essential in helping students think clearly and in helping them organize and present their thoughts effectively. Individuals need to be able to communicate effectively for their own advancement and for their engagement with the world.


## Quantitative Reasoning

- Quantitative reasoning skills are required in almost every major and professional program, as well as in personal and professional life. Students need quantitative literacy to function in society. Common examples include managing one's own finances (e.g., credit card debt), reading and understanding the newspaper, and informed voting.


## Perspectives on a Diverse World

- Global Awareness
- Because of the interconnectedness of nations, very few organizations function solely in the U.S. We all need to understand the world in which we live; to be informed citizens, we need to be able to think about and understand other cultures. By studying a number of nations or one nation in depth, students learn the skills for understanding other cultures.
- U.S. Diversity
- College is often the first place where students are placed in an environment with people unlike them. We all need to learn respect for other persons, and such respect comes with knowledge. An understanding of and appreciation for diversity is central in employment, civic participation, and life more generally.


## Knowledge of the Disciplines

- Because each discipline offers a different perspective for understanding the world, understanding anything well requires some understanding of all of them. Students employ critical thinking skills to develop questions of inquiry that reflect an understanding of different disciplinary perspectives.


## Learning Beyond the Classroom

- A university education is about more than just classes. Students involved in activities outside of the classroom have higher retention rates and more positive educational experiences. Learning Beyond the

Classroom encourages students to obtain hands-on experience and to learn about professionalism; it also provides a way to apply classroom knowledge.

## Waiver, Placement and Substitutions

- Students may choose to complete ENGL 120 as an elective to prepare for the required ENGL 121 course. Students will decide this by completing the Guided Self-Placement (GSP) Student Survey located at www.emich.edu/english/gsp/. Students with an ACT English sub-score of 29 or higher, or an SAT Verbal sub-score of 640 or higher, are waived from this requirement. International students may use ESLN 412 to meet the ENGL 121 requirement Area I, \#1.
- Students with a very strong background in oral communication (public speaking and critical listening) may contact the Communication and Theatre Arts department at 124 Quirk, 734.487 .3131 , for a possible waiver of the required CTAS 124 course. Waivers are granted only on a case-by-case basis.
- Students with an ACT Math sub-score of less than 19, or an SAT Math sub-score of less than 520, are encouraged to take MATH 097/098 in preparation for MATH 110. However, students may take the Math Placement Test to place into MATH 110. (NOTE: MATH 097 and 098 do NOT count toward the minimum 124 hours required for graduation. Students who complete MATH 097 and/or 098 will be required to complete additional hours over the minimum of 124 hours to graduate.)
- Students with
- an ACT Math sub-score of 19-22, or an SAT Math sub-score of 520-570, are eligible to take MATH 110 based on that test score.
O an ACT Math sub-score of 23-27, an SAT Math sub-score of 580-660, or a CLM score of 53-92 may take MATH 110 or another course designated as a quantitative reasoning (QR) course.
- an ACT Math sub-score of 28 or higher, an SAT Math sub-score of 670 or higher, or a CLM score 93 or higher are waived from the Math 110 requirement.
- Upon a student's initial enrollment at EMU, the Academic Advising Center (734.487.2171) has the authority to exercise professional judgment when accepting transfer courses for the General Education Program. Credits earned through the Advanced Placement (AP), College-Level Examination Program (CLEP), International Baccalaureate (IB), and the military are treated as transfer credit and the scores/credits are evaluated by the following departments:
- AP - College of Arts and Sciences, Dean's Office, 734.487.4344
- CLEP - Academic Advising Center, 734.487.2171
- IB - Office of Admissions, International Admissions, 734.487.0205
- Military credit -Veterans Services, 734.487.3119
- After their initial enrollment at EMU, students who wish to receive General Education approval to take, at another institution, courses not accepted as direct (course-to-course) equivalencies to the General Education Program, must receive prior approval from the General Education Director (734.487.0439).
- Waivers and substitutions for courses taken at EMU and not approved for the General Education Program can only be granted by the General Education Director (734.487.0439) and cannot be approved for General Education credit by academic departments. NOTE: Exceptions to this are the courses in Area I and II whose guidelines appear above.


## QRChoice Category Information

Students under the new General Education Program are placed into a Quantitative Reasoning (QR) category based upon their ACT or SAT math score. Students with an ACT math score greater than or equal to 23 or an SAT math score greater than or equal to 580 are in the "QRChoice" category; they can take any approved QR course (or may be waived from the requirement* if the score is $28+$ for ACT or $670+$ for SAT). All other students, including those without an ACT or SAT score, must take MATH 110 or MATH 110E (for Elementary Education certification) as the requirement for the General Education Program.

Students who are not eligible for QRChoice may test into this category by using the College Level Math section (CLM) of the mathematics placement test. Testing into QRChoice can only be done under the following conditions:

1. A student must obtain a form designated for this purpose from the Academic Advising Center, 301 Pierce. (This is not the same as the pink math placement authorization form.)
2. The score on the CLM must be 53 or higher. No exceptions will be made to this cutoff. A score of 93 or higher will earn the student a QR waiver**.
3. The student cannot take the CLM test more than two times. This includes times that the test is taken for initial placement purposes.
4. A student must wait a minimum of 30 days between a first attempt and a second attempt.
5. The test must be taken within one calendar year from the beginning of the student's first term at EMU with an application decision of "regular admit." This applies also to a second attempt.
6. To take the QRChoice test, a student must have a minimum math score on the ACT of 19 or on the SAT of 520 or have passed the Elementary Algebra placement test with a minimum score of 83 .
Students should consider getting the QRChoice Category Request to Test Form if this situation applies to them.
QRChoice Category Request to Test Forms will be returned to the Academic Advising Center through a secure route, and kept on file there. Students who successfully test into QRChoice will have a code entered onto their record by the Academic Advising Center to be used for graduation audit purposes. A study guide can be found at http://math.emich.edu/placement.html
*A QR waiver means that the QR requirement for the General Education Program is deemed to have been satisfied. A student may still have to take one of the designated QR courses if his/her program (major, minor or curriculum) requires it or if it is needed as a prerequisite to another course he/she wishes to take.

## General Education Transfer Guidelines

Transfer students with MACRAO* will need to meet three requirements:

1. $\mathbf{Q R}$ requirement

A course transferring in as MATH 105, MATH 112, or any course on the QR list, will meet this requirement if taken before the first semester at EMU with an application decision of "regular admit." If not, the student must satisfy the QR requirement by a course at EMU or a course-for-course transfer (see General Education Program, Area II).
2. Perspectives on a Diverse World

One course is required and may be in either Global Awareness or U.S. Diversity; it can be transferred if taken before the first semester at EMU with an application decision of "regular admit."
3. Learning Beyond the Classroom

Only one course or experience is required and must be completed at EMU.
Transfer students without MACRAO* but with 30 or more transferable hours will need to satisfy:

1. All General Education requirements

Requirements may be met by transferred courses if taken before the first semester at EMU with an application decision of "regular admit."
2. $\mathbf{Q R}$ requirement (exception)

A course transferring in as MATH 105, MATH 112, or any course on the QR list will meet the requirement if taken before the first semester at EMU with an application decision of "regular admit." If not, the student must satisfy the QR requirement by a course at EMU or a course-for-course transfer (see General Education Program, Area II).
3. Perspectives on a Diverse World (exception)

One course is required and may be in either Global Awareness or U.S. Diversity; it can be transferred if taken before the first semester at EMU with an application decision of "regular admit."
4. Learning Beyond the Classroom (exception)

Only one course or experience is required and must be completed at EMU.
Transfer students without MACRAO* and with less than 30 transferable hours will need to satisfy:

## 1. All General Education requirements

Requirements may be met by transferred courses if taken before the first semester at EMU with an application decision of "regular admit."
2. $Q R$ requirement (exception)

A course transferring in as one of MATH 105, MATH 112, or any course on the QR list will meet the requirement if taken before the first semester at EMU with an application decision of "regular admit." If not, the student must satisfy the QR requirement by a course at EMU or a course-for-course transfer (see General Education Program, Area II).
3. Learning Beyond the Classroom (exception)

Only one of the two LBC requirements may be an equivalent course that is transferred if taken before the first semester at EMU with an application decision of "regular admit." The other LBC must be completed at EMU.
*MACRAO may be completed after initial enrollment at EMU
To receive credit for transfer courses completed after the first term of enrollment at EMU with an application decision of "regular admit," the courses must be direct equivalencies (course-to-course) to EMU's General Education Program in order to be applied to General Education requirements. Questions regarding course-to-course equivalencies should be directed to the Director of the General Education Program at 734.487.0439.

## Student Affairs \& Campus Services

Click on a link to be taken to the entry below.

- Campus Services
- Career Services Center
- Students with Disabilities Office
- Children's Institute
- Cooperative Education
- Counseling Services
- Health Education and Wellness Programs
- Holman Learning Center
- Student Center
- Campus Life
- Department of Diversity and Community Involvement
- Office of International Students
- Ombudsman
- University Health Services
- Student Government
- University Student Identification Card
- Veteran Services Office
- Campus Living
- Housing
- Residence Halls
- Apartments on Campus
- Dining Services
- Student Rights and Responsibilities
- University Governance and Individuals' Rights


## Campus Services

## Career Services Center

Career Services Center

Address: $\mathbf{2 0 0}$ McKenny Hall
Phone: 734.487.0400
Fax: 734.487.0940
Web site: http://career.emich.edu

Satellite Office
College of Business
Address: 210 Owen Building
Phone: 734.487.4099

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 jobs 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, CSC offers an assortment of reference materials on career opportunities, selfassessment, employer literature and many other career-related items. These services are available at CSC's main office in McKenny Hall with a more limited range of services at the COB satellite location.

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 freshman 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:

- Resumé, interviewing and job search strategy workshops
- Job Choices manual available to all seniors
- EagleCareers.erecruiting.com online posting service
- On-campus recruiting interview program
- Resumé 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 oncampus interview program.

## Students with Disabilities Office

## Address: EMU Student Center, Room 220

Phone: 734.487.2470
TTY: 734.487.2470

## Web site: www.emich.edu/disabilities

Students with physical, learning or psychological disabilities, sensory impairments or chronic health conditions must register with the Students with Disabilities Office (SWDO) 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 SWDO 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 SWDO to discuss their individual needs.

## Children's Institute

Address: 103 Rackham Hall
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 click here.)

## Benefits to the Student

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


## Eligibility/Application

Most students must be at least of junior standing with 12-15 credit hours or prerequisites completed in the major. The College of Business (COB) and the College of Health and Human Services (CHHS) will consider second-semester sophomores in selected majors. Note that eligibility and prerequisites vary based on major/minor and that departmental approval is required in most cases. A first step in pursuing a co-op is to speak with an advisor in your program of study to determine application procedures.

## 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 this may vary by major and department. 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 Career Services Center provides listings for internships at EagleCareers.eRecruiting.com and also has print materials about internship opportunities at their main office in 200 McKenny Hall. 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 freshmen 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.

## 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

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, Third 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 prevention and education programs, screenings and assessments
- Checkpoint Program
- HIV counseling/testing and referral services
- Health Resource Library
- Classroom and workshop presentations
- CloseUP Theatre Troupe
- Violence Intervention Program (VIP)
- CPR/First Aid certification classes


## 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 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) to 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 focusing 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 freshman residence halls, the Student Center and Halle Library. 3) Peer support sessions offer students an opportunity to talk to graduate students 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./César Chávez/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 and 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 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), first-year 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: 900 Oakwood St., Rm. 370, Ypsilanti, MI 48197
Phone: 734.487.1157
Fax: 734.487.0493
Web site: http://www.emich.edu/studentcenter
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 and the Recreation/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, Taco Bell/KFC, Sbarro's, Green Market Bistro, convenience store, TCF Bank, Eagle Card Office, Apple store, ticket office, and a gaming center. 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, Admissions Welcome Center, University Information Center, Service EMU, Office of International Students, New Student Programs, Student Judicial Services, Students with Disabilities Office, 24/7 computer lab, Commuter Central and lounge, and Starbucks Coffee. 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/studentcenter. 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: $\mathbf{3 4 5}$ EMU Student Center
Phone: 734.487.3045
FAX: 734.480.1927
Web site: www.emich.edu/campuslife
Campus Life offers student-centered learning, development and involvement activities that challenge and support the unique gifts, needs, experiences and interests of our students, our professional staff members and members of the broader campus community.

- Arts, Intellectual, Cultural and Entertainment Programs

Offering social engagement and aesthetic literacy experiences through a variety of activities including late night/evening/weekend programs, intellectual/cultural experiences, guest speakers and artists, student performances, films and more.

- Commuter Life

Providing access to an array of services designed to support commuter students including Service EMU, temporary and one-night campus housing for commuters, commuter scholarships and Student Legal Services. Also serving the transition, student involvement and engagement needs of commuters through commuter orientation, the Commuter Student Association, and campus activities.

- Leadership and Student Involvement

Providing students with opportunities to enhance their personal and professional skills through student volunteer boards, student employment experiences, and an array of leadership development programs.

- Orientation and Transition Programs

Offering programs, services and resources assisting students to transition successfully into and through their college career including Fusion: New Student Orientation for freshmen, transfer and adult students, the MyFY Website, First Year Mentor Program, and Real Beginnings.

- Student Organizations and Greek Life

Providing programs, services, resources and advocacy for student organizations, including fraternities and sororities, to function safely and effectively, contributing positively to the EMU community.

## Department of Diversity and Community Involvement

## Diversity Programs

Address: EMU Student Center, 3rd Floor
Phone: 734.487.3118
Fax: 734.487.6910
Web site: www.emich.edu/dci
Volunteerism and Community Service
EMU Student Center, 3rd Floor
Phone: 734.487.3045
Fax: 734.480.1927
Web site: www.emich.edu/vision
The Department of Diversity and Community Involvement (DCI) offers numerous opportunities for engagement and learning beyond the classroom. DCI provides opportunities for students, faculty, and staff to get involved in social justice education, programming, and activism.

Diversity and Community Involvement comprises four centers: the Center for Multicultural Affairs, the Lesbian, Gay, Bisexual, Transgender Resource Center (LGBTRC), VISION (Volunteers Incorporating Service into our Neighborhoods), and the Women's Center. The Center for Multicultural Affairs, LGBTRC and the Women's Center offer a variety of programming and services promoting diversity and inclusion. The Centers recognize, support, and celebrate diverse student populations; promote academic, personal, social and professional development of diverse student populations; provide information, resources, and referral services; and help faculty and staff teach effectively in a diverse University setting. Examples of our programming include Cultural Heritage Celebration Months, Out Month, Lavender Role Models and Mentors, Take Back the Night, and The Vagina Monologues.

VISION Volunteer Center - the fourth of DCI's Centers - offers opportunities for students to get involved in service. VISION helps students learn about social issues, address community needs and strengthen community partnerships. Our student-led programs include Alternative Breaks, America Reads, Best Buddies, GREEN, Habitat for Humanity, Jumpstart, Kid Konnection, Students Against Hunger and Homelessness, and One-Day Events.

## Office of International Students

## Address: $\mathbf{2 4 4}$ EMU Student Center

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, 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: www.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.

## University Health Services

Address: Snow Health Center Main Floor
Phone: 734.487.1122
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 can usually be accommodated.

All currently enrolled students, faculty, staff and their spouses at Eastern Michigan University are eligible for services.
Medical Services provides treatment as well as preventive services for a wide range of acute, episodic and ambulatory medical conditions, some of which include:

- Evaluation and treatment for minor illness and injury
- Physical examinations
- Allergy shots, immunizations, meningitis shots, TB testing and flu shots
- Women's health care including annual exams, diagnosis and treatment for infections, birth control and pregnancy tests
- X-ray and laboratory tests

Snow Health Center is a fully staffed medical facility. The professional team includes physicians, nurse practitioners, nurses and technologists who have specialized in the health and lifestyle concerns of young adults. In addition, faculty and residents from St. Joseph Mercy Hospital work with the staff in a collaborative program to provide services.

The EMU Student Health Insurance policy, sponsored by Student Government, is accepted in full for covered services after co-pays are met. The EMU policy can be reviewed and purchased online at www.uhcsr.com

## Pharmacy

Address: Snow Health Center, Main Floor
Phone: 734.487.1125
Fax: 734.487.0273
Web site: www.emich.edu/uhs

The pharmacy is licensed by the State of Michigan and provides quality pharmaceutical services with an emphasis on patient counseling regarding your medication(s), issues involving possible drug interactions, proper use and storage of your medication(s), dosage and side effects. The pharmacy can fill prescriptions written by licensed physicians in Michigan as well as most prescriptions written by out-of-state licensed providers. We participate with many
prescription insurance plans. The pharmacy also maintains a variety of over-the-counter products, including noprescription medications.

## Student Government

Governed by the President (elected each spring) Address: $\mathbf{3 4 2}$ EMU Student Center
Phone: 734.487.1470
Web site: www.emich.edu/studentorgs/studentgov
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 campuswide events and trips to Lansing to meet with state legislators.

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

Address: 303E Pierce Hall, Records and Registration Office
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 and 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: Housing and Dining Services Office (lower level, The Commons)
Phone: 734.487.1300
Fax: 734.487.8513
E-mail: housing@emich.edu
Web site: www.emich.edu/housing/halls.php

## Residence Halls

Eastern Michigan University's residence system provides housing for over 3,000 students, staff and faculty. Housing options include both traditional residence halls and apartments. Our 12 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 window treatments. Part of the fun of living in a hall is making it feel like home. Check www.emich.edu/housing/whattobring for specific details.

## 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 Leadership and Advisory Boards 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 Leadership and Advisory Boards. 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 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/main.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;
4. Select your residence hall program:

- First-Year Experience Halls: Phelps/Sellers, Walton/Putnam, Best (new incoming freshmen only)
- Honors Hall (members of Honors College)
- Upperclass hall (sophomores and above only)
- Single Room halls (reserved for returning students, new upperclass, transfer and graduate students)

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 $\$ 20$ 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 twobedroom apartment is four. The maximum number of individuals in a one-bedroom unit is two.

## Contact:

Address: Housing and Dining Services Office (lower level, The Commons)

## Phone: 734.487.0445

Web site: www.emich.edu/housing/apartments

## Dining Services

Address: Housing \& Dining Services Office (lower level, The Commons)
Phone: 734.487.0418
Fax: 734.487.8513
Web site: www.emich.edu/dining
You will never get bored eating the same old food in the same old place at EMU. There are more than 20 locations campus-wide (including four convenience stores). All locations are open to students, faculty, staff, parents and invited guests. Various meal plan memberships which may be purchased by the university community have been designed to complement lifestyles and budgets. Meal plan memberships may be charged to student accounts, or purchased by cash, check or charge card (Visa/MasterCard). Memberships may be purchased at the Housing \& Dining Services Office; Eagle Express may also be purchased at the Eagle OneCard Office in the Student Center. Following are the available meal plan memberships.

Required for all freshmen living in residence halls:

## PLATINUM-18

- 3 meals daily Monday-Friday
- 2 meals Saturday
- 1 meal Sunday
- 2 guest meal passes
- $\quad \$ 75$ E-Dollars per semester for use at any EMU campus-operated location


## GOLD - 13

- 2 meals daily Monday-Saturday
- 1 meal Sunday
- 4 guest meal passes
- $\quad \$ 150$ E-Dollars per semester for use at any EMU campus-operated location


## SILVER-8

- 8 meals any time Monday-Sunday
- 8 guest meal passes
- $\quad \$ 250$ E-Dollars per semester for use at any EMU campus-operated location

Available only to upperclassmen returning to the residence hall program or transferring with a minimum of 24 credit hours:

## SUPER FLEX

- Debit account with total flexibility
- An additional $25 \%$ administration fee will be required


## BASIC FLEX

- Debit account with total flexibility
- An additional $25 \%$ administration fee will be required

Additional memberships available to all non-residence hall students, faculty and staff:
APARTMENT RESIDENTS FLEX

- Debit account with total flexibility

THE COMMONS BLOCK PLAN

- Designed for those who enjoy The Commons' experience of all-you-care-to-eat buffet dining
- Monday-Friday, lunch and dinner
- Always fresh - many healthy options
- Wireless internet access
- Purchase in blocks of 5 meals $=\$ 40$
- Purchase 25 meals and receive 2 free meals
- Balance rolls over semester to semester


## EAGLE EXPRESS

- 5\% discount at all EMU operated facilities available to faculty, staff and students
- Used in all dining locations campus-wide including 4 convenience stores
- Pre-paid debit card means safety and convenience without carrying cash
- Excellent way to supplement your meals 24/7
- Minimum beginning balance is $\$ 25$ and balance will roll over from semester to semester

NOTE: Posted hours will vary pending holidays and academic calendar. Some dining locations will remain open during unscheduled shutdowns such as snow emergencies. Contact each area for specific hours.

## - The Commons

Formerly known as Dining Commons ONE. Diners will enjoy an all-you-care-to-eat self-serve food court featuring home cooked entrees, pasta and stir fry lines, soups, popular fast foods, an extensive salad bar, desserts, and the very popular make-your-own Belgium waffles. Accessible through Downing Residence Hall. 734.487.2442

## - Eastern Eateries

High-tech fast food mall with 6 shops featuring 5 national franchises: Jump Asian Cuisine, A \& W, Sbarro, Sunset Strips and Freshens. Sundays from 1-6 pm enjoy one-time walk through all-you-care-to-eat Buffet Extravaganzas. Conveniently located between Phelps-Sellers and Walton-Putnam Residence Halls. 734.487.0444
While at the Eateries check out the QuickFixx convenience store located on the lower level. This little store has it all: groceries, toiletries, snacks, greeting cards and video rentals. 734.487.0122

## - CrossRoads MarketPlace

Home of the first room service venue in the country for residents "on the hill," this is a unique food court and full service grocery store concept featuring Einstein Bros. Bagels shop plus Hot Off The Grill (entrees) and Panini Grill (deli). Also featured is an extensive video rental and greeting card selection. Located in the Hoyt Conference Center. 734.487.3066

## - EMU Student Center Food Court

Features the Lobby Shop (snack shop), Taco Bell Express, KFC Express and Starbucks. This year an exciting new GreenMarket Bistro opened its doors featuring The Garden Bistro (the first all vegetarian venue on campus), Dog Daze
gourmet hot dogs, Jet Smoothies and Sbarro. 734.487.6416
Satellite Operations - all shops provide sandwiches, soups, salads, pastries and beverages.

- Cafe Crescendo located in Alexander Hall. 734.487.8450
- Common Ground Cafe located in the Marshall Building. 734.487.3412
- Courtside located in the Rec/IM. 734.487.6693
- Flying Eagles located in Pray-Harrold (northeast end). Also serves Starbucks coffee. 734.487.6965
- Food For Thought located in Sill Hall. 734.487.6965
- Paradox Cafe \& Commons located in Halle Library. Also serves Starbucks coffee. 734.487.4550
- The Bottom Line located in the College of Business (downtown Ypsilanti). 734.487.5609
- TO BE Cafe located in Quirk-Sponberg Theatres. 734.487.6699


## 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 Thomas W. Sidlik, Ann Arbor, chair; Roy E. Wilbanks, Ypsilanti, vice chair; Floyd Clack, Flint; Gary D. Hawks, Okemos; Philip A. Incarnati, Clarkston; Mohamed Okdie, Detroit; 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 organizations recognized by the University and 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 <br> Diversity and Affirmative Action <br> Address: 11 Welch Hall <br> 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 other calls), Human Resources (487.0083), and/or 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 $\mathbf{4 5}$ 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

## Continuing Education

Click on a link to be taken to the entry below.

- Mission Statement
- Off-Campus Locations
- EMU-Online
- Independent Learning
- Prior Learning Assessment
- One-Week Courses
- Professional Programs and Training
- Centers for Corporate Training
- Professional Education Center
- Academic Programs Abroad

Byron D. Bond, dean
102 Boone Hall
Phone: 734.487.0427
Fax: 734.487.2316
Dan Gaymer, associate dean
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 and locations and in formats that are convenient for students balancing full- or part-time jobs, 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.

## Mission Statement

It is the mission of Continuing Education to provide leadership in dissolving traditional campus boundaries through collaborative programs that complement and extend the educational, research and public service activities of the University, as understood in the context of our identity as a metropolitan and publicly engaged University. Continuing Education 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 Continuing Education is committed to helping meet these challenges. We offer flexible and innovative applied academic experiences in the State of Michigan, nationally and internationally.

Through EMU's Continuing Education units, it is now possible for individual adult students, businesses, and 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.

## 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 Dr., 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: 313.342.2767
E-mail: detroit@emich.edu

EMU-Fish Lake
2816 Fish Lake Rd.
Lapeer, MI 48446
Phone: 810.667.2350
E-mail: fish.lake@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 Dendrinos Drive, Suite 200-M
Traverse City, MI 49684
Phone: 877.368.8289
E-mail: traverse.city@emich.edu
Washtenaw County
Eastern Michigan University
101 Boone Hall, Suite 200-P
Ypsilanti, MI 48197
Phone: 734.487.0407
E-mail: continuing.education@emich.edu

## EMU-Online

Phone: 734.487.0407
E-mail: distance.education@emich.edu

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

Phone: 734.487.0407
E-mail: distance.education@emich.edu

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 guides 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

Earn credit during EMU's winter break by taking a one-week course offered in northern Michigan.
EMU-Winter Break
Phone: 877.368.8289
E-mail: winter.break@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.

EMU-Traverse City
Phone: 877.368.8289
E-mail: traverse.city@emich.edu

## Professional Programs and Training

## Barbara L. Hopkins, director

Phone: 734.487.2259 or 800.932.8689
E-mail: bhopkins@emich.edu
Continuing Education's Professional Programs and Training offers programs and services for working individuals seeking professional development, ongoing educational opportunities, executive development, workshops and special events of interest to the EMU community and beyond. For a complete list of professional programs and training opportunities, visit www.ce.emich.edu/ppat.

## Professional Certificates, Training and CEUs

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

- Michigan State Board - Continuing Education Units (SB-CEUs)
- Certified Financial Planning
- Certificate in Information Security Systems
- SHRM Human Resource courses and certificates
- American Payroll Association courses
- Specialist Certificates in Occupational Health and Safety
- Specialist Certificates in Quality Management
- Six Sigma Green and Black Belt certification
- Online test preparation workshops


## Centers for Corporate Training

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

Web sites: www.centerforquality.org and www.emuosha.org
The Centers for Corporate Training are nationally known for designing and providing a wide range of training, technical assistance and consulting services for hundreds of companies each year in health, safety, security and quality. Our clients include automotive and non-automotive manufacturers and their suppliers, plastics and electronics producers, the construction industry, 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 organizational, technological and economic change. We meet our customers where they are, providing on-site instruction and facilitation to help create efficiencies and help them become more effective for their customers.

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 have served thousands of people in hundreds of companies in North America, Asia, Europe and South America, providing innovative education and training programs around the globe.

## The Professional Education Center

Web site: www.emich.edu/public/cob/pec/index.htm

Today's business challenges require organizations to provide equally innovative and applied training and development programs. The Professional Education Center (PEC) in the College of Business at Eastern Michigan University provides customized technical and leadership training programs to help businesses and individuals meet challenges and build technical and leadership skills. Students benefit from training and professional coaching from EMU's world-class College of Business and external instructors and consultants.

The PEC tailors training programs to meet your unique organizational challenges bringing innovative and applied programs to the workplace. We can bring to your organization programs to enhance management and business skills and to support leader development including:

- Management Certificate Program - Developing the Leader in You Workshop series
- Emotional Intelligence and Leadership
- The "Mini MBA" - a non-credit program for non-business professionals
- Business Skills - Finance, Marketing, Statistics, Business Communication
- Project Management - Introduction and Certificate Programs
- Biz World 101- for new business professionals


## Academic Programs Abroad

George Klein, director

Address: 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. Some programs offer graduate credit.

## 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.

## Winter Break Programs

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

- Art in Mexico
- Hospitality Management in London and Paris
- British Studies in London
- Power, Place and Image in Florence and Rome
- Art and History in Prague and Munich


## Spring and Summer Programs

- The Cultural History Tours are unique travel-study programs that visit multiple countries throughout Europe and Asia. 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 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.
- EMU students may choose from a variety of spring and summer 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, Spain, 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 World Religions.

## 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, and 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, and Université Catholique de l'Ouest, France.


## College of Arts and Sciences

Dean<br>Tom Venner<br>411 Pray-Harrold<br>Phone: 734.487.4344<br>Associate Dean<br>Diane Winder<br>411 Pray-Harrold<br>Phone: 734.487.4348<br>\section*{Associate Dean}<br>Wade Tornquist<br>411 Pray-Harrold<br>Phone: 734.487.4349<br>College of Arts and Sciences General Education Advising Office<br>720 Pray-Harrold<br>Phone: 734.487.7523<br>\section*{Departments and Programs}<br>- African American Studies<br>- Art<br>- Biology<br>- Chemistry<br>- Communication, Media and Theatre Arts<br>- Computer Science<br>- Economics<br>- English Language and Literature World Languages<br>- Geography and Geology<br>- History and Philosophy<br>- Mathematics<br>- Music and Dance<br>- Physics and Astronomy<br>- Political Science<br>- Psychology<br>- Sociology, Anthropology and Criminology<br>- Women's and Gender Studies<br>- World Languages

## 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 genderrelated 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.

# African American Studies Programs 

## African American Studies

Address: 620 Pray-Harrold
Phone: 734.487.3460
E-mail: vokafor@emich.edu
Web site: http://www.emich.edu/public/daas/
The Department of African American Studies offers a bachelor's degree program in African American Studies, including an undergraduate major and a minor. The department also offers a graduate certificate in African American Studies and an undergraduate certificate in African Studies. The undergraduate degree program examines the Black experience in the Americas, the Caribbean, and Africa from historical and contemporary perspectives. It studies the African American experience not only as an entity in its own right but also as a microcosm of dynamics operating in domestic and global settings. The program addresses the multidimensionality of the Black experience, including its historical, political, public policy, legal, economic, sociological, psychological, religious, and artistic dimensions.

African American Studies Programs and Courses

## Certificate

## Undergraduate Certificate in African Studies

Add a specialty to your degree with an undergraduate certification in African Studies. Gain a special insight into ancient and contemporary Africa from a scholarly perspective. The certificate program encompasses such areas of African affairs as history, political economics, geography, politics, and arts. It serves as a means by which the student can enhance his/her awareness of the diversity that characterizes human existence.

In sum, this program is designed to prepare and equip students with:

1. Inter-cultural sensitivity
2. The ability to develop social policies and cultural competencies applicable to their careers
3. Knowledge of key epistemological issues in African Studies
4. Research, critical thinking and critical writing skills

## Admission Requirements

In order to be admitted to this undergraduate certificate in African Studies, you have to meet any of the following conditions. One, you must be either pursuing an undergraduate degree at EMU in any field of study or you can apply as a post-baccalaureate degree holder. You can also be admitted if you are a graduate student or a graduate degree holder, and you wish to obtain the undergraduate certificate in African Studies. To apply for admission, click on the following link: online admission forms.

## Career Opportunities

Students who are still working towards their undergraduate degrees or many professionals with degrees in a variety of educational arenas may find this certification program a means of achieving an edge above the competition. The certificate is intended to complement careers in a wide-variety of fields, including education, social work, international jobs, health care and political science. Those with careers or majors in international relations, economic and political welfare, public policy and administration, public relations, journalism, community outreach, social services, human resources and cultural diversity may find this certificate particularly helpful.

## Online \& Non-online Courses

Note that for both required and restricted electives categories, online and non-online versions of the approved courses are acceptable.

## Advising

If you have questions or need advising, contact Dr. Victor Oguejiofor Okafor either by email, vokafor@emich.edu or by telephone, (734)487-3460.
Required Courses: 12 hours
The certificate in African Studies requires completion of the following 12-credit hour requirement. Note that only 300level or above courses can be applied towards this certificate program, and such courses must be completed at Eastern. In addition, credits applied to this certificate program cannot be used towards the satisfaction of any major, minor or general education requirements.

Core Courses: 6 hours

- AAS 312 - African Civilization Credits: 3 hrs
- AAS 313 - Contemporary Africa: The Struggle and Prospects for Development Credits: 3 hrs Restricted Elective Courses: 6 hours

Select six credit hours from the following:

- AAS 379 - Special Topics Credits: 3 hrs
or
- AAS 499 - Independent Study Credits: 3 hrs
- ART 425 - Arts of Africa Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 349 - South Africa, 1500-Present Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs

Certificate Total: 12 hours

## Major

## African American Studies Major

General Education Requirements: 30-57 hours
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Required Course: 9 hours

- AAS 101 - Introduction to African American Studies Credits: 3 hrs
- AAS 201 - Foundations of Knowledge in African American Studies Credits: 3 hrs
- AAS 401 - African American Studies Research Seminar Credits: 3 hrs

Restricted Elective Courses: 21 hours
Twenty-one hours from the following:

- AAS 102 - Introduction to African Civilization Credits: 3 hrs
- AAS 221 - African American Social Movements Credits: 3 hrs
- AAS 231 - Urbanization and the African American Community Credits: 3 hrs
- AAS 232 - Politics in the African American Experience Credits: 3 hrs
- AAS 233 - Public Policy and African Americans Credits: 3 hrs
- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 272 - Hip Hop Lyricism in African American Culture Credits: 3 hrs
- AAS 301 - Writing for African American Studies Credits: 3 hrs
- AAS 311- The African Diaspora Credits: 3 hrs
- AAS 312 - African Civilization Credits: 3 hrs
- AAS 313 - Contemporary Africa: The Struggle and Prospects for Development Credits: 3 hrs
- AAS 351-The Social Context of African American Health Credits: 3 hrs
- AAS 361 - The African American Family Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- AAS 370 - Films of the African American Experience Credits: 3 hrs
- AAS 402 - African American Studies Internship Seminar Credits: 3 hrs
- AAS 441 - Law in the African American Experience Credits: 3 hrs
- CTAR 151 - African American Theatre: An Introduction Credits: 3 hrs
- HIST 315 - History of Black Americans Credits: 3 hrs
- LITR 160 - African American Literature Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs

Elective Courses: 3 hours
Any course offered by the African American Studies Department, including independent studies and special topics
One course from the following:

- AAS 232 - Politics in the African American Experience Credits: 3 hrs
- AAS 233 - Public Policy and African Americans Credits: 3 hrs
- AAS 312 - African Civilization Credits: 3 hrs
- AAS 313 - Contemporary Africa: The Struggle and Prospects for Development Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- CTAR 151 - African American Theatre: An Introduction Credits: 3 hrs
- CTAR 251 - African American Theatre: Creative Problems Credits: 3 hrs
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 365 - The Old South Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 306 - The Urban Community Credits: 3 hrs

Minor Requirements: 20 hours
University Elective Courses: 31 hours
Program Total: 124 hours
Note:
All majors must have at least nine hours of course work at the 300-level or above.

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

## Minor

## African American Studies Minor

Required Courses: 9 hours

- AAS 101 - Introduction to African American Studies Credits: 3 hrs
- AAS 201 - Foundations of Knowledge in African American Studies Credits: 3 hrs
- AAS 401 - African American Studies Research Seminar Credits: 3 hrs

Restrictive Elective Courses: 9 hours
Nine hours from the following:

- AAS 102 - Introduction to African Civilization Credits: 3 hrs
- AAS 221 - African American Social Movements Credits: 3 hrs
- AAS 231 - Urbanization and the African American Community Credits: 3 hrs
- AAS 232 - Politics in the African American Experience Credits: 3 hrs
- AAS 233 - Public Policy and African Americans Credits: 3 hrs
- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 272 - Hip Hop Lyricism in African American Culture Credits: 3 hrs
- AAS 301 - Writing for African American Studies Credits: 3 hrs
- AAS 311 - The African Diaspora Credits: 3 hrs
- AAS 312-African Civilization Credits: 3 hrs
- AAS 313-Contemporary Africa: The Struggle and Prospects for Development Credits: 3 hrs
- AAS 351-The Social Context of African American Health Credits: 3 hrs
- AAS 361 - The African American Family Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- AAS 370 - Films of the African American Experience Credits: 3 hrs
- AAS 402 - African American Studies Internship Seminar Credits: 3 hrs
- AAS 441 - Law in the African American Experience Credits: 3 hrs
- HIST 315 - History of Black Americans Credits: 3 hrs
- LITR 160 - African American Literature Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- WGST 242 - Psychology of Women Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs

Elective Courses: 3 hours
One course from the following:

- AAS 232 - Politics in the African American Experience Credits: 3 hrs
- AAS 233 - Public Policy and African Americans Credits: 3 hrs
- AAS 312-African Civilization Credits: 3 hrs
- AAS 313-Contemporary Africa: The Struggle and Prospects for Development Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- CTAR 151 - African American Theatre: An Introduction Credits: 3 hrs
- CTAR 251 - African American Theatre: Creative Problems Credits: 3 hrs
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 365 - The Old South Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 306 - The Urban Community Credits: 3 hrs

Minor Total: 21 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.

## Art Programs

## Art

Address: 114 Ford Hall
Phone: 734.487.1268
E-mail: colin.blakely@emich.edu
Web site: www.emich.edu/art
The Art Department at EMU consists of four undergraduate programs in studio art, art history, and art education. They are tightly interrelated in their sharing of faculty, facilities, resources and a common interest in the understanding, creation and advancement of visual art. Synergies develop between areas, students and faculty as they work to support each others' goals. The four programs that make up the Art Department range in size and focus from the Visual Arts Education program that has led its peers in the outstanding preparation of art teachers, to an art history program that not only helps EMU art and general education students understand their shared visual culture, but has provided additional leadership and outreach to the community through its support of speakers and the development of exhibitions of historical and contemporary art and artists. The B.F.A. program leads the department with the greatest number of majors, and is recognized for its excellence in the preparation of studio artists.

Art Programs and Courses

## Major

## 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
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Courses: 18 hours

- ART 107-Art History Survey I Credits: 3 hrs
- ART 108-Art History Survey II Credits: 3 hrs
- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 215 - History of 19th Century Art Credits: 3 hrs
- ART 216 - History of 20th Century Art Credits: 3 hrs
- ART 428 - Seminar in 20th Century Art Credits: 3 hrs

Elective Courses: 9 hours
Pre-Renaissance Art

## One course from the following:

- ART 340 - History of Classical Art Credits: 3 hrs
- ART 426 - Medieval Art History Credits: 3 hrs

Renaissance/Baroque Art

One course from the following:

- ART 341 - History of Renaissance Art Credits: 3 hrs
- ART 427 - Baroque Art Credits: 3 hrs

Non-Western or Women's Art

One course from the following:

- ART 421 - History of Asian Art Credits: 3 hrs
- ART 422 - Art of East Asia Credits: 3 hrs
- ART 425 - Arts of Africa Credits: 3 hrs
- ART 430 - Mesoamerican Art Credits: 3 hrs
- ART 436 - Women in Art Credits: 3 hrs

Art History Elective: 3 hours
One course from the following:

- Any upper-level art history course not taken to fulfill another requirement
- ART 151 - Reason and Revolution Credits: 3 hrs
- ART 335 - American Painting and Sculpture Prior to World War II Credits: 3 hrs
- ART 429 - History of American Architecture Credits: 3 hrs
- ART 440 - Art Since 1945 Credits: 3 hrs
- ART 497 - Independent Study Credits: 1 hr
- ART 498 - Independent Study Credits: 2 hrs
- ART 499 - Independent Study Credits: 2 hrs

Minor Requirements: 20 hours
University Elective Courses: 34 hours
Program Total: 124 hours
Notes:
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.

## Art Major

The Bachelor of Science in Art is designed to allow students to explore Studio Art and Art History within a diverse liberal arts context. Foundation courses give students a basic skill set in both Art History and Studio Art, and elective courses allow students to explore a range of different media and/or Art Historical periods.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Course (Foundations): 18 hours

- ART 107 - Art History Survey I Credits: 3 hrs
- ART 108 - Art History Survey II Credits: 3 hrs
- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 123 - Drawing I Credits: 3 hrs
- ART 124 - Drawing II Credits: 3 hrs
- ART 131-Three-Dimensional Design Credits: 3 hrs

Elective Courses: 12 hours
T welve 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.

## Bachelor of Fine Arts

The Bachelor of Fine Arts is designed to encourage students to develop a personal focus and direction as well as learn to function professionally as artists.

An extensive range of foundation courses provides students with the basic skills they need to be successful in upperlevel courses. The required area of concentration allows students to gain a level of expertise in a specific medium and use that expertise to refine their own artistic vision. Art elective requirements allow students to gain experience in a range of media as well as to engage in experiences that support their area of concentration.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 54-60
Required Course (Foundations): 27 hours

- ART 107 - Art History Survey I Credits: 3 hrs
- ART 108 - Art History Survey II Credits: 3 hrs
- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 123 - Drawing I Credits: 3 hrs
- ART 124 - Drawing II Credits: 3 hrs
- ART 131 - Three-Dimensional Design Credits: 3 hrs
- ART 210 - Life Drawing Credits: 3 hrs
- ART 215 - History of 19th Century Art Credits: 3 hrs
- ART 216 - History of 20th Century Art Credits: 3 hrs Area of Concentration: 12-18 hours

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

- ceramics
- drawing
- fibers
- graphic design
*see note
- metalsmithing
- painting
- photography
- printmaking
- sculpture
- watercolor/painting

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 (6 courses). Students seeking the BFA with a graphic design concentration must complete 60 hours in the major.

## Bachelor of Fine Arts with K-12 Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifes 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 Art Education.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 54 hours
Required Courses (Foundations): 27 hours

- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 123 - Drawing I Credits: 3 hrs
- ART 124 - Drawing II Credits: 3 hrs
- ART 131 - Three-Dimensional Design Credits: 3 hrs
- ART 210 - Life Drawing Credits: 3 hrs

One course from the following:

- ART 107-Art History Survey I Credits: 3 hrs
- ART 108 - Art History Survey II Credits: 3 hrs

One course from the following:

- ART 109 - Survey of Non-Western Art Credits: 3 hrs
- ART 421 - History of Asian Art Credits: 3 hrs
- ART 422 - Art of East Asia Credits: 3 hrs
- ART 425 - Arts of Africa Credits: 3 hrs
- ART 430 - Mesoamerican Art Credits: 3 hrs
- Any other available non-Western art history course

Additional Art History:

- ART 215 - History of 19th Century Art Credits: 3 hrs
- ART 216 - History of 20th Century Art Credits: 3 hrs

Restricted Elective Courses: 18 hours
Eighteen hours from the following, at least six hours from 3-dimensional media:
3-Dimensional Media:

- ART 235 - Introduction to Fibers Credits: 3 hrs
- ART 307-Ceramics Credits: 3 hrs
- ART 310 - Sculpture Credits: 3 hrs
- ART 320 - Jewelry Credits: 3 hrs

2-Dimensional Media

- ART 201 - Introduction to Graphic Design I Credits: 3 hrs
- ART 304 - Beginning Photographic Imagery Credits: 3 hrs
- ART 305 - Printmaking Credits: 3 hrs
- ART 313 - Painting Credits: 3 hrs
- ART 314 - Watercolor I Credits: 3 hrs
- ART 330-Computer Imaging Credits: 3 hrs
- ART 432 - Drawing III Credits: 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:

- Fibers
- Ceramics
- Sculpture
- Metalsmithing
- Graphic Design
- Photography
- Printmaking
- Painting
- Watercolor
- Drawing

Minor Requirements: 0 hours
No minor required.
Professional Studies: 42 hours
Pre-Admission phase: The Learner and the Community: 10 hours

The following courses can be taken prior to admission to the teacher education program:

- ART 317- Teaching of Art Credits: 3 hrs
- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

Phase 1: Curriculum, Assessment and the Social Context: 10 hours
The following courses require admission to the teacher education program:

- ART 331 - Technology in Art Education Credits: 3 hrs
- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 10 hours

- ART 416 - Art Methods and Materials Credits: 3 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 496 - Student Teaching Credits: 6 hrs
- EDUC 497 - Student Teaching Credits: 6 hrs

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.

## Minor

## 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 in the major with studio courses.

Required Courses: 15 hours

- ART 107 - Art History Survey I Credits: 3 hrs
- ART 108 - Art History Survey II Credits: 3 hrs
- ART 215 - History of 19th Century Art Credits: 3 hrs
- ART 216 - History of 20th Century Art Credits: 3 hrs
- ART 428 - Seminar in 20th Century Art Credits: 3 hrs

Restricted Elective Courses: 6 hours
Six hours from art history courses selected in consultation with art history minor advising coordinator. Minor Total: 21 hours

Note:

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

## Art Minor

Required Courses: 9 hours

- One art history course ( 3 hrs )
- (ART108 Art History Survey II suggested)
- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 123 - Drawing I Credits: 3 hrs

Elective Courses: 12 hours

Twelve hours in studio art or art history, including art courses for non-majors, of which at least six hours must be at the 300-level or above.
Minor Total: 21 hours

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

## Biology Programs

## Biology

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

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 and the Conservation Training School at Higgins Lake. 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 PreVeterinary 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, Dr. Stephen and Christine Liu 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. For postdegree candidates: only courses for which students received a grade C or better can count toward the biology major or minor requirements for the teaching certification.

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.

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. Biology/Pre-Chiropractic - Concordia University

Biology Programs and Courses

## Major

## Biology Major

Majors should start with BIO110 followed by BIO120 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 BIO 301 is a pre- or corequsite for both BIO305 and BIO315, 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 ares strongly advised to elect the remaining core course as one of the electives

General Education Requirements: 40 hrs
For specific requirements refer to the General Education Program .
Major Requirements: 63-65
Biology: 36 hours
Required Foundation Courses: 13 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs

Biology Core Courses: 6 hours

Two courses from the following:

- BIO 305-Cell and Molecular Biology Credits: 3 hrs
- BIO 310 - Ecology Credits: 3 hrs
- BIO 315 - Evolution Credits: 3 hrs

Biology Core Labs: 2 hours
One course from the following:

- BIO 306W - Cell and Molecular Biology and Genetics Laboratory Credits: 2 hrs
- BIO 311W - Laboratory in Ecology Credits: 2 hrs

Restricted Electives: 15 hours

Choose an additional 15 semester hours at the 300- and 400-level in biology. At least one course must be at the $400-$ level. All courses must have a minimum prerequisite of BIO120. BIOT courses cannot be counted toward the biology major. No more than six hours of BIO387 Cooperative Education and BIO497-499 Undergraduate Research in Biology can be counted toward the major.

Chemistry: 16-17 hours

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr Select either option 1 or option 11 :

Option I:

- CHEM 371- Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373- Organic Chemistry Laboratory Credits: 2 hrs Option II:
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr One course from the following:
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs

Physics: 8 hours

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

Math: 3-4 hours
One course from the following:

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 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. Options are BIO306W and BIO311W.
*Students who plan to pursue graduate work in biology or who are in a preprofessional 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
For specific requirements refer to the General Education Program .
Major Requirements: 57-59 hours
Required Foundation Courses: 28 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs
- BIO 305 - Cell and Molecular Biology Credits: 3 hrs
- BIO 310 - Ecology Credits: 3 hrs
- BIO 315 - Evolution Credits: 3 hrs
- BIO 326 - Human Physiology Credits: 3 hrs
- BIO 406 - The Nature of Science Credits: 1 hr One course from the following:
- BIO 306W - Cell and Molecular Biology and Genetics Laboratory Credits: 2 hrs
- BIO 311W - Laboratory in Ecology Credits: 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 BIO120. BIOT courses may NOT be counted toward a biology major.
Chemistry: 16-17 hours

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr Select either option 1 or option 11 :

Option I:

- CHEM 371- Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs Option II:
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr One course from the following:
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs

Physics: 8 hours

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

Math: 3-4 hours
One course from the following:

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs

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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- BIOT 403 - Methods for Teaching Secondary Biology Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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 three - four additional credits.
University Elective Courses: 0 hours
Program Total: 156-162 hours
Notes:
Each student must choose a writing intensive course as part of major completion requirements. Options are BIO306W and BIO311W.

* PHY 406 or ESSC 406 may be substituted for BIO406


## Minor

## Biology Minor

Minors should start with BIO110 Introductory Biology I followed by BIO120 Introductory Biology II in their freshman or sophomore year. Minors without high school biology should take BIO105 Introductory Biology for Non-majors before taking BIO110. (Although BIO105 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 BIO305

Required Courses: 13 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs

Restricted Elective Courses: 3 hours

One course from the following:

- BIO 305-Cell and Molecular Biology Credits: 3 hrs
- BIO 310 - Ecology Credits: 3 hrs
- BIO 315 - Evolution Credits: 3 hrs

Elective Courses: 6 hours

Six hours at the 300- or 400-level in biology selected in consultation with a biology adviser. All elective courses must have a minimum prerequisite of BIO120. BIOT courses 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 BIOL387 Cooperative Education and BIO497-499 Undergraduate Research in Biology can be counted toward the minor. Minor Total: 22 hours

## Biology Minor-Secondary K-12 and Special EducationSecondary 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

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs
- BIO 310 - Ecology Credits: 3 hrs
- BIO 326 - Human Physiology Credits: 3 hrs

One course from the following:

- BIO 305-Cell and Molecular Biology Credits: 3 hrs
- BIO 315 - Evolution Credits: 3 hrs

One course from the following:

- BIO 306W - Cell and Molecular Biology and Genetics Laboratory Credits: 2 hrs
- BIO 311W - Laboratory in Ecology Credits: 2 hrs

Minor Total for Science Majors: 24 hours
Students minoring in Biology with secondary certification, but not majoring in a science teaching certification program must take the following courses:

- BIOT 403 - Methods for Teaching Secondary Biology Credits: 3 hrs
- BIO 406 - The Nature of Science Credits: 1 hr

Minor Total for Non-Science Majors: 28 hours
Notes:
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 BIO406.
**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 BIO305.

## 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: 13-14 hours

- BIO 107 - Introduction to Environmental Science Credits: 3 hrs
or
- ESSC 107 - Introduction to Environmental Science Credits: 3 hrs
- BIO 226-Global Ecology and the Environment Credits: 4 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

One course from the following:

- ESSC 108 - Earth Science for Nonscience Majors Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs

Elective Courses: 9 hours
Nine hours from the following selected in consultation with the advising coordinator:

- BIO 130 - Biology of Plants Credits: 4 hrs
- BIO 140 - Biology of Animals Credits: 4 hrs
- BIO 215 - Plants and People Credits: 3 hrs
- BIO 310 - Ecology Credits: 3 hrs
- BIO 311 - Laboratory in Ecology Credits: 2 hrs
- BIO 410 - Limnology Credits: 3 hrs
- BIO 413 - Wetland Ecosystems Credits: 3 hrs
- BIO 414 - Terrestrial Ecosystems Credits: 3 hrs
- BIO 455 - Plant Evolution and Classification Credits: 3 hrs
- BIO 456 - Freshwater Algae Credits: 3 hrs
- BIO 457 - Aquatic Plants Credits: 3 hrs
- BIO 458 - Trees and Shrubs Credits: 3 hrs
- BIO 460 - Plant Anatomy Credits: 3 hrs
- BIO 480-Natural History of Invertebrates Credits: 3 hrs
- BIO 481 - Natural History of Vertebrates Credits: 3 hrs
- BIO 482 - Ichthyology Credits: 3 hrs
- BIO 483 - Mammalogy Credits: 3 hrs
- BIO 484 - Herpetology Credits: 3 hrs
- BIO 485 - Ornithology Credits: 3 hrs
- BIO 486 - Entomology Credits: 3 hrs
- CHEM 115 - Chemistry and Society Credits: 3 hrs
- CHEM 415 - Environmental Chemistry Credits: 3 hrs
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 336 - Economics of Environment and Natural Resources Credits: 3 hrs
- ECON 337 - Energy Economics and Policies Credits: 3 hrs
- ESSC 114 - National Parks and Monuments Credits: 2 hrs
- ESSC 208 - Natural Environmental Hazards Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- ESSC 495 - Environmental Assessment and Planning Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 361 - Geography of Population Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- GPLN 495 - Environmental Assessment and Planning Credits: 3 hrs
- SOCL 306 - The Urban Community Credits: 3 hrs
- SOCL 334 - Population Credits: 3 hrs

Minor Total: 22-23 hours

Notes:
All minors must have at least six hours of course work at the 300-level or above.
*Biology majors minoring in conservation will take BIO310 and BIO311 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

## Human Biology Minor

The Human Biology minor is open to all majors including Biology.
Required courses provide students with a background in biology with electives that highlight contemporary issues in human biology.

Required Courses: 4-5 hours
One course from the following:

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs

Elective Courses: 15-16 hours
15 to 16 hours of the following:

- BIO 251 - Human Anatomy and Physiology I Credits: 3 hrs
- BIO 255 - Human Genetics Credits: 3 hrs
- BIO 256-The Biology of Cancer Credits: 2 hrs
- BIO 257 - Human Embryonic Development Credits: 3 hrs
- BIO 258 - Germs, Plagues and Human Infections Credits: 3 hrs
- BIO 259 - Biology of Aging Credits: 2 hrs
- BIO 269 - Biology of Sex and Gender Credits: 3 hrs

No more than one course from the following:

- BIO 252 - Human Anatomy and Physiology II Credits: 3 hrs
- BIO 326 - Human Physiology Credits: 3 hrs

Minor Total: 20 hours

Note:
Minors should start with either BIO105 or BIO110.
*For students choosing to take an additional course in human physiology after completing BIO251, they may choose either BIO252 or BIO326, but not both.
The Human Biology Minor is open to the biology major, however these students will not be able to apply BIO110 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 perquisites for certain courses, so it is important to meet with a Plant Biology Minor adviser early in their program.

Required Course: 4 hours

- BIO 130 - Biology of Plants Credits: 4 hrs

Restricted Electives: 16 hours
16 hours from the following:

- BIO 215 - Plants and People Credits: 3 hrs
- BIO 226 - Global Ecology and the Environment Credits: 4 hrs
- BIO 412 - Biogeography Credits: 3 hrs
- BIO 455 - Plant Evolution and Classification Credits: 3 hrs
- BIO 456 - Freshwater Algae Credits: 3 hrs
- BIO 457 - Aquatic Plants Credits: 3 hrs
- BIO 458 - Trees and Shrubs Credits: 3 hrs
- BIO 459 - Mycology Credits: 3 hrs
- BIO 460 - Plant Anatomy Credits: 3 hrs
- BIO 461 - Plant Physiology Credits: 3 hrs
- BIO 462 - Plant Biotechnology Credits: 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 BIO120. Biology majors electing the plant biology minor must take an additional four credits of restricted electives in place of BIO130.
**These courses have additional prerequisites other than BIO130. 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:
A ll minors must have at least six hours of course work at the 300-level or above.

## Chemistry Programs

## Chemistry

Address: 225 Mark Jefferson
Phone: 734.487.0106
Web site: www.emich.edu/public/chemistry
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 and the professional biochemistry curriculum (with an appropriate selection of electives) are 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.

Chemistry Programs and Courses

## Major

## Biochemistry/Toxicology Curriculum

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

- Enrollment in at least two hours from a toxicology cooperative education project (CHEM487/488/489) (2 hrs)
- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs
- BIO 476 - Mammalian Histology Credits: 3 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 361 - Fundamentals of Physical Chemistry Credits: 3 hrs
- CHEM 381 - Instrumentation for Chemical Technology Credits: 2 hrs
- CHEM 411 - Toxicology I Credits: 2 hrs
- CHEM 412 - Toxicology II Credits: 3 hrs
- CHEM 413 - Toxicology Laboratory Credits: 2 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs
- CHEM 452 - Biochemistry II Credits: 3 hrs
- CHEM 453 - Biochemistry Laboratory Credits: 2 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

One course from the following:

- BIO 305 - Cell and Molecular Biology Credits: 3 hrs
- BIO 326 - Human Physiology Credits: 3 hrs

One course from the following:

- MATH 170 - Elementary Statistics Credits: 3 hrs
- PSY 205 - Quantitative Methods in Psychology Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 10-11 hours
Program Total: 124 hours

Notes:

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.

## Chemistry Major-Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualifes 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
For specific requirements refer to the General Education Program .
Additional Requirements: 12-14 hours

- MATH 120 - Calculus I Credits: 4 hrs

One course from the following:

- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

One course from the following:

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs

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

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 361 - Fundamentals of Physical Chemistry Credits: 3 hrs
- CHEM 371 - Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs
- CHEM 381 - Instrumentation for Chemical Technology Credits: 2 hrs
- CHEM 406 - The Nature of Science Credits: 1 hr
or equivalent (see course description)
One course from the following:
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs

Elective Courses: 2-3 hours
Two to Three hours from 300- and 400-level courses in chemistry.
Professional Studies: 39 hours
Pre-Admission Phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 9 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

One course from the following:

- CHEM 325 - Methodology for Secondary Chemistry Teachers Credits: 3 hrs
- PHY 325 - Methods of Teaching the Physical Sciences Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.

## General Biochemistry Curriculum

This curriculum is design 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 predental 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

For specific requirements refer to the General Education Program .
Major Requirements: 55-57

Required Coures: 50-52 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 361 - Fundamentals of Physical Chemistry Credits: 3 hrs
- CHEM 381 - Instrumentation for Chemical Technology Credits: 2 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs
- CHEM 452 - Biochemistry II Credits: 3 hrs
- CHEM 453 - Biochemistry Laboratory Credits: 2 hrs
- MATH 120 - Calculus I Credits: 4 hrs

One course from the following:

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs

One course from the following:

- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

Elective Courses: 5 hours
Five credits from any 300-level or above biology courses. *
Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 27-29 hours
Program Total: 124 hours
Notes:
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.
**Premedicine and predentistry 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.

## 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
For specific requirements refer to the General Education Program .
Additional Requirements: 12-14 hours

- MATH 120 - Calculus I Credits: 4 hrs

One course from the following:

- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs One course from the following:
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs Major Requirements: 30 hours

Required Courses: 25 hours

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 361 - Fundamentals of Physical Chemistry Credits: 3 hrs
- CHEM 371 - Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs
- CHEM 381 - Instrumentation for Chemical Technology Credits: 2 hrs

Elective Courses: 5 hours
Fiv e hours from 300- and 400-level courses in chemistry.
University Elective Courses: 34 hours
Minor Requirements: 20 hours
Program Total: 124 hours

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

## Professional Biochemistry Curriculum

The professional biochemistry curriculum prepares students for graduate study or a research career in biochemistry. With the appropriate elective (CHEM332 or CHEM 432), it meets the requirements established for certification by the American Chemical Society. 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
For specific requirements refer to the General Education Program.
Major Requirements: 78 hours
Required Courses: 71 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 301 - Genetics Credits: 3 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 371 - Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs
- CHEM 452 - Biochemistry II Credits: 3 hrs
- CHEM 453 - Biochemistry Laboratory Credits: 2 hrs
- CHEM 461-Chemical Thermodynamics and Kinetics Credits: 3 hrs
- CHEM 463 - Physical Chemistry Laboratory Credits: 2 hrs
- CHEM 465-3 hrs Quantum and Statistical Mechanics Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

Two hours from the following:

- CHEM 487 - Cooperative Education in Chemistry Credits: 1 hr
- CHEM 488 - Cooperative Education in Chemistry Credits: 2 hrs
- CHEM 489 - Cooperative Education in Chemistry Credits: 3 hrs
- CHEM 497 - Undergraduate Research in Chemistry Credits: 1 hr
- CHEM 498 - Undergraduate Research in Chemistry Credits: 2 hrs
- CHEM 499 - Undergraduate Research in Chemistry Credits: 3 hrs

Elective Courses: 7 hours
Four hours from the following:
Certification by the American Chemical Society requires appropriate selection of electives from among those indicated with "**."

- Three hours from any courses in biology 300-level or above
- CHEM 332 - Inorganic Chemistry Credits: 2 hrs
- CHEM 411 - Toxicology I Credits: 2 hrs
- CHEM 412 - Toxicology II Credits: 3 hrs
- CHEM 413 - Toxicology Laboratory Credits: 2 hrs
- CHEM 432 - Advanced Inorganic Chemistry Credits: 3 hrs
- CHEM 433 - Inorganic-Organic Synthesis Laboratory Credits: 2 hrs
- CHEM 475 - Introduction to Polymer Chemistry Credits: 3 hrs
- CHEM 477 - Special Topics Credits: 1 hr
- CHEM 478 - Special Topics Credits: 2 hrs
- CHEM 479 - Special Topics Credits: 3 hrs
- CHEM 481 - Instrumental Analysis Credits: 4 hrs
- CHEM 485 - Introduction to Radiotracer Techniques Credits: 2 hrs
- CHEM 487-Cooperative Education in Chemistry Credits: 1 hr
- CHEM 488 - Cooperative Education in Chemistry Credits: 2 hrs
- CHEM 489 - Cooperative Education in Chemistry Credits: 3 hrs
- CHEM 497 - Undergraduate Research in Chemistry Credits: 1 hr
- CHEM 498 - Undergraduate Research in Chemistry Credits: 2 hrs
- CHEM 499 - Undergraduate Research in Chemistry Credits: 3 hrs
- CHEM 551 - Macromolecular Biochemistry Credits: 2 hrs
- CHEM 554 - Protein Structure and Function Credits: 2 hrs
- CHEM 555 - Neurochemistry Credits: 3 hrs
- CHEM 572-Spectrometric Organic Structure Determination Credits: 4 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 6 hours
Program Total: 124 hours
Notes:
*Completion of BIOL1 10, or equivalent coursework, is required for biochemistry students to obtain biology departmental permission for 300- and 400-level biology courses.
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. The professional chemistry curriculum meets the requirements established for certification 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
For specific requirements refer to the General Education Program.

Major Requirements: 69-70 hours
Required Courses: 67-68 hours

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 371- Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs
- CHEM 432 - Advanced Inorganic Chemistry Credits: 3 hrs
- CHEM 433 - Inorganic-Organic Synthesis Laboratory Credits: 2 hrs
- CHEM 461-Chemical Thermodynamics and Kinetics Credits: 3 hrs
- CHEM 463 - Physical Chemistry Laboratory Credits: 2 hrs
- CHEM 465-3 hrs Quantum and Statistical Mechanics Credits: 3 hrs
- CHEM 481 - Instrumental Analysis Credits: 4 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs

One course from the following:

- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- CHEM 451 - Biochemistry I Credits: 3 hrs

Two hours from the following:

- CHEM 487 - Cooperative Education in Chemistry Credits: 1 hr
- CHEM 488 - Cooperative Education in Chemistry Credits: 2 hrs
- CHEM 489 - Cooperative Education in Chemistry Credits: 3 hrs
- CHEM 497 - Undergraduate Research in Chemistry Credits: 1 hr
- CHEM 498 - Undergraduate Research in Chemistry Credits: 2 hrs
- CHEM 499 - Undergraduate Research in Chemistry Credits: 3 hrs

Elective Courses: 2 hours

Chemistry

- CHEM 411 - Toxicology I Credits: 2 hrs
- CHEM 412 - Toxicology II Credits: 3 hrs
- CHEM 413 - Toxicology Laboratory Credits: 2 hrs
- CHEM 415 - Environmental Chemistry Credits: 3 hrs
- CHEM 452 - Biochemistry II Credits: 3 hrs
- CHEM 453 - Biochemistry Laboratory Credits: 2 hrs
- CHEM 475 - Introduction to Polymer Chemistry Credits: 3 hrs
- CHEM 477-Special Topics Credits: 1 hr
- CHEM 478 - Special Topics Credits: 2 hrs
- CHEM 479 - Special Topics Credits: 3 hrs
- CHEM 485 - Introduction to Radiotracer Techniques Credits: 2 hrs
- CHEM 487 - Cooperative Education in Chemistry Credits: 1 hr
- CHEM 488 - Cooperative Education in Chemistry Credits: 2 hrs
- CHEM 489 - Cooperative Education in Chemistry Credits: 3 hrs
- CHEM 498 - Undergraduate Research in Chemistry Credits: 2 hrs
- CHEM 499 - Undergraduate Research in Chemistry Credits: 3 hrs
- CHEM 551 - Macromolecular Biochemistry Credits: 2 hrs
- CHEM 554 - Protein Structure and Function Credits: 2 hrs
- CHEM 555 - Neurochemistry Credits: 3 hrs
- CHEM 561 - Quantum Chemistry and Spectroscopy Credits: 2 hrs
- CHEM 562 - Statistical Mechanics and Chemical Kinetics Credits: 2 hrs
- CHEM 565 - Nuclear Chemistry Credits: 3 hrs
- CHEM 571 - Advanced Organic Chemistry Credits: 3 hrs
- CHEM 572 - Spectrometric Organic Structure Determination Credits: 4 hrs
- CHEM 574-Advanced Organic Chemistry Topics Credits: 2 hrs
- CHEM 581 - Advanced Analytical Chemistry Credits: 3 hrs

Mathematics and Computer Science

- Other 400-level courses with department permission
- MATH 425 - Mathematics for Scientists Credits: 3 hrs

Physics

- Other 400-level courses with department permission
- PHY 450 - Electricity and Magnetism II Credits: 3 hrs
- PHY 452 - Electrical Measurements Credits: 4 hrs
- PHY 456 - Electronics for Scientists Credits: 4 hrs
- PHY 471 - Atomic and Nuclear Physics Credits: 3 hrs

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.

## Minor

## Biochemistry Minor

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123-General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 453 - Biochemistry Laboratory Credits: 2 hrs

One course from the following:

- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- CHEM 451-Biochemistry I Credits: 3 hrs

Minor Total: 22-23 hours
Notes:

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

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs

Elective Courses: 3 hours

Three hours from courses numbered above 200 in chemistry.
Minor Total: 20 hours
Notes:
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. CHEM 371/372/373 cannot be used as elective hours in chemistry.

## Chemistry Minor-Secondary, K-12 and Special EducationSecondary 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."

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs

Choose one option from the following:
Option 1
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).

- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs Option 11

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.

- CHEM 451 - Biochemistry I Credits: 3 hrs

Minor Total: 24 hours
Notes:

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.

# Communication, Media and Theatre Arts Programs 

## Communication, Media and Theatre Arts

Address: 124 Quirk
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The Department of Communication, Media 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, Media and Theatre Arts, consult the graduate catalog.

Communication, Media and Theatre Arts Programs and Courses

## Major

## 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 studen 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
For specific requirements refer to the General Education Program .

Major Requirements: 38 hours
Required Courses: 26 hours
Art Fundamentals: 17 hours

- ART 107-Art History Survey I Credits: 3 hrs
- ART 108-Art History Survey II Credits: 3 hrs
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
- CTAR 155 - Producing Theatre Credits: 3 hrs
- DANC 102 - Modern Dance Fundamentals Credits: 3 hrs
- MUSC 107 - Music Appreciation Credits: 3 hrs

Media and Arts Management: 9 hours

- CTAR 452 - Arts Management Credits: 3 hrs
- CTAT 334 - Radio-Television News Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs

Restrictive Elective Courses: 10 hours
One course from each of the following areas:

- academic dance
- art
- music
- theatre

Strongly Recommended Elective Courses:

- A course in technical theatre
- CTAR 426 - Fund Raising in the Arts Credits: 2 hrs
- CTAR 427-Grant Writing for the Arts Credits: 2 hrs
- CTAR 453 - Marketing the Arts Credits: 3 hrs
- CTAR 454 - Law, Public Policyand the Arts Credits: 3 hrs

Internships: 2 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
Select from either management or marketing in consultation with the arts management advising coordinator. 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 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

For specific requirements refer to the General Education Program .
Major Requirements: 41 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAC 407 - Directing the Secondary Communication and Theatre Co-Curriculum Credits: 2 hrs
- CTAO 210 - Interpretative Reading Credits: 3 hrs
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
- CTAR 155 - Producing Theatre Credits: 3 hrs
- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs

Professional Studies: 39 hours

Pre-Admission phase: The Learner and the Community: 8 hours

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- CTAC 307 - The Teaching of Speech Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.
English Teaching minor strongly recommended.
Program Total: 140-144 hours

Note:

Students will declare a teaching major or minor in conjunction with their CTA program - there is no restriction on General Education course selections - students complete standard College of Education Professional Studies program.

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
For specific requirements refer to the General Education Program .

Major Requirements: 36 hours

Foundation Courses: 15 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs

Public Communication: 3 hours

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 340 - Communication Ethics Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs

Relational Communication: 3 hours
One course from the following:

- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 226 - Nonverbal Communication Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs

Organizational Communication: 3 hours

## One course from the following:

- CTAC 354 - Organizational Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs

Cultural Communication: 3 hours
One course from the following:

- CTAC 260 - Gender Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs

Advanced Theory and Research: 6 hours
Two courses from the following:

- CTAC 440 - Public Discourse Analysis Credits: 3 hrs
- CTAC 460 - Theories of Speech Criticism Credits: 3 hrs
- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- CTAC 485 - Communication Theory Credits: 3 hrs

Capstone Experience: 3 hours
This course is restricted to Communication Majors only.

- CTAC 495 - Communication Capstone Credits: 3 hrs

Restricted Elective Courses: 12 hours
Twelve hours from the list of restricted elective courses below that were not selected as a required course above:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 226 - Nonverbal Communication Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 260 - Gender Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 340 - Communication Ethics Credits: 3 hrs
- CTAC 352 - Communication in Negotiation Credits: 3 hrs
- CTAC 354 - Organizational Communication Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs
- CTAC 372 - Assertive Communication Credits: 3 hrs
- CTAC 373 - Family Communication Credits: 3 hrs
- CTAC 376 - Communication and Conflict Resolution Credits: 3 hrs
- CTAC 379 - Special Topics Credits: 3 hrs
- CTAC 440 - Public Discourse Analysis Credits: 3 hrs
- CTAC 460 - Theories of Speech Criticism Credits: 3 hrs
- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- CTAC 485 - Communication Theory Credits: 3 hrs

No more than six credit hours from the following courses:

- CTAA 166 - Forensics Credits: 1 hr
- CTAA 266 - Forensics Credits: 1 hr
- CTAA 366 - Forensics Credits: 1 hr
- CTAA 466 - Forensics Credits: 1 hr
- CTAC 387 - Cooperative Education in Communication Credits: 1 hr
- CTAC 388 - Cooperative Education in Communication Credits: 2 hrs
- CTAC 389 - Cooperative Education in Communication Credits: 3 hrs
- CTAC 407 - Directing the Secondary Communication and Theatre Co-Curriculum Credits: 2 hrs
- CTAC 487 - Internship in Communication Credits: 1 hr
- CTAC 488 - Internship in Communication Credits: 2 hrs
- CTAC 489 - Internship in Communication Credits: 3 hrs
- CTAC 497 - Independent Study Credits: 1 hr
- CTAC 498 - Independent Study Credits: 2 hrs
- CTAC 499 - Independent Study Credits: 3 hrs

Alternate department courses. No more than three credit hours substituted for a restricted elective:

- CTAO 205 - Voice and Articulation Credits: 3 hrs
- CTAO 210 - Interpretative Reading Credits: 3 hrs
- CTAT 241 - Radio-Television-Film Announcing Credits: 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.

## 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

For specific requirements refer to the General Education Program .

Major Requirements: 36 hours
Required Courses: 6 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAO 205 - Voice and Articulation Credits: 3 hrs

Restricted Elective Courses: 12 hours

At least three credits from four of the five following concentrations

1. Communication

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 354 - Organizational Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs

11. Interpretation/Performance Studies

- CTAO 210 - Interpretative Reading Credits: 3 hrs

111. Electronic Media and Film Studies

- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 131 - Introduction to Audio Production and Direction Credits: 2 hrs
- CTAT 132 - Introduction to Video Production and Direction Credits: 2 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- CTAT 145 - Introduction to Film Appreciation Credits: 3 hrs
IV. Theatre arts
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
- CTAR 151 - African American Theatre: An Introduction Credits: 3 hrs
- CTAR 152 - Technical Theatre: Scenery and Lighting Credits: 2 hrs
- CTAR 153-Technical Theatre: Costume and Makeup Credits: 2 hrs
- CTAR 155 - Producing Theatre Credits: 3 hrs
- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
V. Educational drama
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAR 327 - Plays for the Young Credits: 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: 3-9 hours
Three to nine hours selected from areas outside the concentration
Minor Requirements: 20 hours
University Elective Courses: 28 hours
Program Total: 124 hours
Note:
*Course satisfies both General Education and Program Requirements.
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

For specific requirements refer to the General Education Program .
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 30-34 hours
Required Courses: 11 hours

- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 131 - Introduction to Audio Production and Direction Credits: 2 hrs
- CTAT 132 - Introduction to Video Production and Direction Credits: 2 hrs One course from the following:
- CTAT 145 - Introduction to Film Appreciation Credits: 3 hrs
- CTAT 236 - History and Criticism of Radio and Television Credits: 3 hrs One course from the following:
- CTAA 165-Television Laboratory Credits: 1 hr
- CTAA 169 - Radio Station WQBR Credits: 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:

- CTAT 231 - Audio Recording Techniques Credits: 3 hrs
- CTAT 241 - Radio-Television-Film Announcing Credits: 3 hrs
- CTAT 331 - Intermediate Radio Production and direction Credits: 3 hrs
- CTAT 332 - Intermediate Television Production and Direction Credits: 3 hrs
- CTAT 333 - Fundamentals of Electronic Moviemaking Credits: 3 hrs
- CTAT 341 - Radio-Television-Film Dramatic Performance Credits: 3 hrs
- CTAT 431 - Advanced Radio Production and Direction Credits: 3 hrs
- CTAT 432 - Advanced Television Production and Direction Credits: 3 hrs
- CTAT 433 - Advanced Electronic Moviemaking Credits: 3 hrs

Writing Courses: 3 hours
Three hours from the following:

- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs
- CTAT 444 - Dramatic Scriptwriting for Visual Media Credits: 3 hrs

Theory Courses: 6 hours
Six hours from the following, three hours must be at the 400-level:

- CTAT 145 - Introduction to Film Appreciation Credits: 3 hrs
- CTAT 236 - History and Criticism of Radio and Television Credits: 3 hrs
- CTAT 245 - A Survey of American Cinema Credits: 3 hrs
- CTAT 335 - Studies in Film Credits: 3 hrs
- CTAT 336 - Studies in Electronic Media Credits: 3 hrs
- CTAT 345 - American Film Genres Credits: 3 hrs
- CTAT 445 - Film Theory and Criticism Credits: 3 hrs
- CTAT 446 - Contemporary Problems in Electronic Media Credits: 3 hrs
- CTAT 447 - Radio-Television Station Management Credits: 3 hrs
- CTAT 479 - Special Topics Credits: 3 hrs

Internship or Cooperative Education: 1-3 hours

- CTAT 387 - Cooperative Education in Radio-TV-Film Credits: 1 hr
- CTAT 388 - Cooperative Education in Radio-TV-Film Credits: 2 hrs
- CTAT 389 - Cooperative Education in Radio-TV-Film Credits: 3 hrs
- CTAT 487 - Internship in Radio-TV-Film Credits: 1 hr
- CTAT 488 - Internship in Radio-TV-Film Credits: 2 hrs
- CTAT 489 - Internship in Radio-TV-Film Credits: 3 hrs

Elective Courses: 3-5 hours
Three hours from Electronic Media and Film Studies and the remaining hours from Communication, Media and Theatre Arts courses, excluding CTAS124, Fundamentals of Speech.
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.

## Electronic Media and Film Studies Major with a Concentration in Film Studies

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Courses: 13 hours

- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 131 - Introduction to Audio Production and Direction Credits: 2 hrs
- CTAT 132 - Introduction to Video Production and Direction Credits: 2 hrs
- CTAT 145 - Introduction to Film Appreciation Credits: 3 hrs
- CTAT 445 - Film Theory and Criticism Credits: 3 hrs

Restricted Elective Courses: 12 hours

Production Courses: 3 hours

- CTAT 333 - Fundamentals of Electronic Moviemaking Credits: 3 hrs Writing Courses: 3 hours
- CTAT 444 - Dramatic Scriptwriting for Visual Media Credits: 3 hrs

Theory Courses: 6 hours
Six hours from the following.

- CTAT 245 - A Survey of American Cinema Credits: 3 hrs
- CTAT 335 - Studies in Film Credits: 3 hrs
- CTAT 345 - American Film Genres Credits: 3 hrs

Internship or Cooperative Education: 1-3 hours

- CTAT 387 - Cooperative Education in Radio-TV-Film Credits: 1 hr
- CTAT 388 - Cooperative Education in Radio-TV-Film Credits: 2 hrs
- CTAT 389 - Cooperative Education in Radio-TV-Film Credits: 3 hrs
- CTAT 487 - Internship in Radio-TV-Film Credits: 1 hr
- CTAT 488 - Internship in Radio-TV-Film Credits: 2 hrs
- CTAT 489 - Internship in Radio-TV-Film Credits: 3 hrs
- CTAT 497 - Independent Study Credits: 1 hr
- CTAT 498 - Independent Study Credits: 2 hrs
- CTAT 499 - Independent Study Credits: 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 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.

## Public Relations Major (Interdisciplinary- Communication)

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, Media and Theatre Arts are off ered as requirements and restricted elective courses.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 48 hours
Required Fundamental Courses: 21 hours

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 312 - Introduction to Public Relations Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs

Required Advanced Courses: 18 hours

- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 408 - Case Studies in Public Relations Credits: 3 hrs

One course from the following:

- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 3 hrs

One course from the following:

- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs

One course from the following:

- CTAC 354-Organizational Communication Credits: 3 hrs
- CTAC 357 - Interviewing as Communication Credits: 3 hrs

Restricted Elective Courses: 9 hours

- CMT 204 - Photographic Communication Credits: 3 hrs
- CMT 436 - Electronic Publishing Technology Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 311 - Newspaper Layout and Design Credits: 3 hrs
- JRNL 455 - Journalism Law and Ethics Credits: 3 hrs

One course from the following:

- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAT 241 - Radio-Television-Film Announcing Credits: 3 hrs

One course from the following:

- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs Maximum of six-hours from the following:
- CTAC 387 - Cooperative Education in Communication Credits: 1 hr
- CTAC 388 - Cooperative Education in Communication Credits: 2 hrs
- CTAC 389 - Cooperative Education in Communication Credits: 3 hrs
- CTAC 487 - Internship in Communication Credits: 1 hr
- CTAC 488 - Internship in Communication Credits: 2 hrs
- CTAC 489 - Internship in Communication Credits: 3 hrs
- JRNL 387 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 488 - Internship in Journalism/Public Relations Credits: 1 hr
- JRNL 489 - Internship in Journalism/Public Relations Credits: 2 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 3 hrs

Minor Requirements: 20 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.

## Theatre Arts Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 36-39 hours
Foundation Courses: 15-16 hours

- CTAA 167 - Theatre Practice Credits: 1 hr
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
- CTAR 152 - Technical Theatre: Scenery and Lighting Credits: 2 hrs
- CTAR 153 - Technical Theatre: Costume and Makeup Credits: 2 hrs
- CTAR 155 - Producing Theatre Credits: 3 hrs
- CTAR 158 - Fundamentals of Acting Credits: 3 hrs

One course from the following:

- CTAA 267 - Theatre Practice Credits: 1 hr
- CTAA 367 - Theatre Practice Credits: 2 hrs
- CTAA 467 - Theatre Practice Credits: 1 hr

Production Concentration Courses: 6 hours

- CTAR 355-Play Direction Credits: 3 hrs One course from the following:
- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 351 - Scene Design Credits: 3 hrs
- CTAR 358 - Characterization Credits: 3 hrs
- CTAR 360 - Dramatic Composition Credits: 3 hrs
- CTAR 363 - Stage Costume: History and Theory Credits: 3 hrs
- CTAR 364 - Stage Costume: Design and Construction Credits: 3 hrs

Theory Courses: 6 hours

- CTAR 450 - History of the Theatre to 1642 Credits: 3 hrs
- CTAR 451 - History of the Theatre 1642 to the Present Credits: 3 hrs

Advanced Production Courses: 3-4 hours

Three to four hours from the following:

- CTAR 457 - Audition Credits: 2 hrs
- CTAR 462 - Directors on Directing Credits: 2 hrs
- CTAR 463 - The American Musical Stage Credits: 3 hrs
- CTAR 464 - Style for the Actor Credits: 3 hrs

Capstone Course: 2 hours

- CTAR 496 - Senior Seminar Credits: 2 hrs

Restricted Elective Courses: 4-5 hours
Choose from any theatre (CTAR) and/or performance (CTAO) course excluding CTAR106.
Minor Requirements: 20 hours
University Elective Courses: 25-28 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.

## Minor

## Arts Management Minor

Required Courses: 20-21 hours

- CTAR 452 - Arts Management Credits: 3 hrs
- CTAR 453 - Marketing the Arts Credits: 3 hrs
- CTAR 454 - Law, Public Policyand the Arts Credits: 3 hrs
- CTAC 354 - Organizational Communication Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs Select one course from the following:
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 246 - Accounting for Public Administrators Credits: 3 hrs Select one course from the following:
- CTAR 488 - Internship in Arts Management Credits: 2 hrs
- CTAR 489 - Internship in Arts Management Credits: 3 hrs

Elective Courses: 2-3 hours

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CTAR 378 - Special Topics Credits: 2 hrs
- CTAR 427-Grant Writing for the Arts Credits: 2 hrs
- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs


## Communication and Theatre Arts Teaching Minor Secondary, K12-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 Courses: 24 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 307-The Teaching of Speech Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAO 210 - Interpretative Reading Credits: 3 hrs
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs

Minor Total: 24 hours
Note:

Students will declare a teaching major or minor in conjunction with their CTA program - there is no restriction on General Education course selections - students complete standard College of Education professional Studies Program.

All minors must have at least six hours of course work at the 300-level or above.
*Majors take CTAC307 as part of the College of Education Professional Studies Program.

## Communication Minor

Required Courses: 21 hours
Foundation Courses: 15 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs Public Communication: 3 hours

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 340 - Communication Ethics Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs

Relational Communication: 3 hours

## One course from the following:

- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 226 - Nonverbal Communication Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs

Organizational Communication: 3 hours

## One course from the following:

- CTAC 354-Organizational Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs

Cultural Communication: 3 hours

One course from the following:

- CTAC 260 - Gender Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs

Advanced Theory and Research: 3 hours
One course from the following:

- CTAC 440 - Public Discourse Analysis Credits: 3 hrs
- CTAC 460 - Theories of Speech Criticism Credits: 3 hrs
- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- CTAC 485 - Communication Theory Credits: 3 hrs

Restricted Elective Courses: 3 hours
Three hours from the list of restricted elective courses below that were not selected as a required course above:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 226 - Nonverbal Communication Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 260 - Gender Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 352 - Communication in Negotiation Credits: 3 hrs
- CTAC 354-Organizational Communication Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs
- CTAC 372 - Assertive Communication Credits: 3 hrs
- CTAC 373 - Family Communication Credits: 3 hrs
- CTAC 376 - Communication and Conflict Resolution Credits: 3 hrs
- CTAC 379 - Special Topics Credits: 3 hrs
- CTAC 440 - Public Discourse Analysis Credits: 3 hrs
- CTAC 460 - Theories of Speech Criticism Credits: 3 hrs
- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- CTAC 485 - Communication Theory Credits: 3 hrs

No more than six credit hours from the following courses:

- CTAA 166 - Forensics Credits: 1 hr
- CTAA 266 - Forensics Credits: 1 hr
- CTAA 366 - Forensics Credits: 1 hr
- CTAA 466 - Forensics Credits: 1 hr
- CTAC 387-Cooperative Education in Communication Credits: 1 hr
- CTAC 388 - Cooperative Education in Communication Credits: 2 hrs
- CTAC 389 - Cooperative Education in Communication Credits: 3 hrs
- CTAC 487 - Internship in Communication Credits: 1 hr
- CTAC 488 - Internship in Communication Credits: 2 hrs
- CTAC 489 - Internship in Communication Credits: 3 hrs
- CTAC 497 - Independent Study Credits: 1 hr
- CTAC 498 - Independent Study Credits: 2 hrs
- CTAC 499 - Independent Study Credits: 3 hrs

Alternate department courses. No more than three hours substituted for a restricted elective:

- CTAO 205 - Voice and Articulation Credits: 3 hrs
- CTAO 210 - Interpretative Reading Credits: 3 hrs
- CTAT 241 - Radio-Television-Film Announcing Credits: 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

- CTAC 124 - Fundamentals of Speech Credits: 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: 20 hours

- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAR 324-Oral Interpretation of Children's Literature Credits: 3 hrs

Elective Courses: 5 hours

Five hours from the following:

- Any course in dramatic literature
- Any communication or theatre arts course
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- CTAA 168 - Interpretation Credits: 1 hr
- CTAA 268 - Interpretation Credits: 1 hr
- CTAA 368 - Interpretation Credits: 3 hrs
- CTAA 468 - Interpretation Credits: 1 hr
- CTAR 326 - Drama/Theatre for Persons with Disabilities Credits: 2 hrs
- CTAR 327 - Plays for the Young Credits: 3 hrs
- CTAR 329 - Performing Theatre for the Young Credits: 3 hrs
- CTAR 377 - Special Topics Credits: 1 hr
- CTAR 378 - Special Topics Credits: 2 hrs
- CTAR 379 - Special Topics Credits: 3 hrs
- CTAR 429 - History and Theory of Developmental Drama/Theatre Credits: 3 hrs
- CTAR 497 - Independent Study Credits: 1 hr
- CTAR 498 - Independent Study Credits: 2 hrs
- CTAR 499 - Independent Study Credits: 3 hrs
- CTAR 504 - Oral Interpretation of Literature and Language with the Young Credits: 2 hrs
- CTAR 522 - TIE: Theatre-in-Education Credits: 2 hrs
- CTAR 523 - Puppetry: Catalyst in Human Development Credits: 3 hrs
- CTAR 524 - Developmental Drama/Theatre for Persons with Disabilities Credits: 2 hrs
- CTAR 525 - Developmental Drama/Theatre in Recreational Settings
- CTAR 528 - Developmental Drama/Theatre in Religion Credits: 2 hrs
- CTAR 565 - Studies in Drama/Theatre for the Young Credits: 2 hrs

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

## Electronic Media and Film Studies Minor

Required Courses: 11 hours

- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 131 - Introduction to Audio Production and Direction Credits: 2 hrs
- CTAT 132 - Introduction to Video Production and Direction Credits: 2 hrs One course from the following:
- CTAT 145 - Introduction to Film Appreciation Credits: 3 hrs
- CTAT 236 - History and Criticism of Radio and Television Credits: 3 hrs One course from the following:
- CTAA 165 - Television Laboratory Credits: 1 hr
- CTAA 169 - Radio Station WQBR Credits: 1 hr Restricted Elective Courses: 9 hours

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 hours from Communication, Media and Theatre Arts classes, excluding CTAS124, Fundamentals of Speech.
Minor Total: 24 hours

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

## Musical Theatre Minor

Basic Core: 16 hours
The courses required are determined by your major.
Dance Majors: 16 hours
This set of classes is for students with a Dance major:

- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 119 - Aural Skills I Credits: 1 hr

Four credit hours from the following: 4 hours
Level of classes are determined by audition.

- AMUS 115 - Secondary Applied Music Credits: $1 / 2 \mathrm{hr}$
- AMUS 416 - Principal Applied Music Credits: $2 / 4$ hrs

Eight credits from the following: 8 hours

- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
- CTAR 254 - Stage Makeup Credits: 1 hr
- CTAR 358 - Characterization Credits: 3 hrs
- CTAR 457 - Audition Credits: 2 hrs
- CTAR 464 - Style for the Actor Credits: 3 hrs

Music Majors: 16 hours
This set of classes is for students with a Music major:

- DANC 100 - Ballet I Credits: 2 hrs
- DANC 200 - Ballet II Credits: 2 hrs
- DANC 478 - Special Topics Credits: 2 hrs

One course from the following: 2 hours

- DANC 101 - Jazz I Credits: 2 hrs
- DANC 201 - Jazz II Credits: 2 hrs

Eight credits from the following: 8 hours

- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
- CTAR 254 - Stage Makeup Credits: 1 hr
- CTAR 358 - Characterization Credits: 3 hrs
- CTAR 457 - Audition Credits: 2 hrs
- CTAR 464 - Style for the Actor Credits: 3 hrs

Theatre Majors: 16 hours
This set of classes is for students with a Theatre major:

- DANC 100 - Ballet I Credits: 2 hrs
- DANC 200 - Ballet II Credits: 2 hrs
- DANC 478 - Special Topics Credits: 2 hrs
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 119-Aural Skills I Credits: 1 hr

Four credits from the following: 4 hours
Level of classes are determined by audition.

- AMUS 115 - Secondary Applied Music Credits: $1 / 2 \mathrm{hr}$
- AMUS 416 - Principal Applied Music Credits: $2 / 4 \mathrm{hrs}$

One course from the following: 2 hours

- DANC 101 - Jazz I Credits: 2 hrs
- DANC 201 - Jazz II Credits: 2 hrs

Advanced Core: 8 hours
Select eight credit hours from the following:

- CTAR 421 - Musical Theatre Styles Credits: 2 hrs
- CTAR 461 - Musical Theatre Acting Credits: 2 hrs
- CTAR 463 - The American Musical Stage Credits: 3 hrs
- CTAR 471 - Musical Theatre Workshop Credits: 1 hr
*This course is cross-listed with MUSC571
- DANC 110 - Modern Dance I for Dance Majors/Minors Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 129 - Aural Skills II Credits: 1 hr`

Minor Total: 24 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

- CTAA 167 - Theatre Practice Credits: 1 hr
- CTAR 150 - Introduction to Theatre Credits: 3 hrs
(may be bypassed by examination or interview, for no credit)
- CTAR 152-Technical Theatre: Scenery and Lighting Credits: 2 hrs
- CTAR 155 - Producing Theatre Credits: 3 hrs
- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
- CTAR 355 - Play Direction Credits: 3 hrs

One course from the following:

- CTAR 450 - History of the Theatre to 1642 Credits: 3 hrs
- CTAR 451 - History of the Theatre 1642 to the Present Credits: 3 hrs
- CTAR 455 - Dramaturgy Credits: 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.

## Computer Science Programs

## Computer Science

Address: 511 Pray-Harrold
Phone: 734.487.1063
E-mail: computer.science@emich.edu
Web site: www.emich.edu/compsci
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.

Computer Science Programs and Courses

## Major

## Computer Science - Applied 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

For specific requirements refer to the General Education Program .
Additional Requirements: 11 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs
- MATH 360 - Statistical Methods Credits: 3 hrs

Major Requirements: 36 hours
Required Courses: 24 hours

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 231 - Internet-based Computing Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- COSC 314 - Computational Discrete Structures Credits: 3 hrs
- COSC 341 - Programming Languages Credits: 3 hrs
- COSC 481 - Software Engineering and Senior Project Credits: 3 hrs Restricted Elective Courses: 12 hours

Four courses from the following:

- COSC 315 - Symbolic Computing Credits: 3 hrs
- COSC 321 - Computer Organization II Credits: 3 hrs
- COSC 405 - Switching Theory Credits: 3 hrs
- COSC 421 - Systems Programming Credits: 3 hrs
- COSC 422 - Introduction to Microprocessors Credits: 3 hrs
- COSC 423 - Computer Operating Systems Credits: 3 hrs
- COSC 436 - Web Programming Credits: 3 hrs
- COSC 439 - Computing Network Principles Credits: 3 hrs
- COSC 444 - Foundations of Automata and Languages Credits: 3 hrs
- COSC 445 - Compiler Construction Credits: 3 hrs
- COSC 456 - Computer Graphics Credits: 3 hrs
- COSC 457 - Computer Game Programming Credits: 3
- COSC 461 - Heuristic Programming Credits: 3 hrs
- COSC 471 - Database Principles Credits: 3 hrs
- COSC 374 - Applied Cryptography Credits: 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 Curriculum

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

For specific requirements refer to the General Education Program .
Comprehensive Computer Science Curriculum Major: 77-81 hours
Required Courses: 39 hours

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 231 - Internet-based Computing Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- COSC 314 - Computational Discrete Structures Credits: 3 hrs
- COSC 321 - Computer Organization II Credits: 3 hrs
- COSC 341 - Programming Languages Credits: 3 hrs
- COSC 423 - Computer Operating Systems Credits: 3 hrs
- COSC 439 - Computing Network Principles Credits: 3 hrs
- COSC 444 - Foundations of Automata and Languages Credits: 3 hrs
- COSC 471 - Database Principles Credits: 3 hrs
- COSC 481 - Software Engineering and Senior Project Credits: 3 hrs

Elective Courses: 6 hours
Any 400-level computer science courses not already taken or select two from the list of courses below:

- COSC 315 - Symbolic Computing Credits: 3 hrs
- COSC 374 - Applied Cryptography Credits: 3 hrs
- COSC 405 - Switching Theory Credits: 3 hrs
- COSC 421 - Systems Programming Credits: 3 hrs
- COSC 422 - Introduction to Microprocessors Credits: 3 hrs
- COSC 436 - Web Programming Credits: 3 hrs
- COSC 445 - Compiler Construction Credits: 3 hrs
- COSC 456 - Computer Graphics Credits: 3 hrs
- COSC 457 - Computer Game Programming Credits: 3
- COSC 461 - Heuristic Programming Credits: 3 hrs

Mathematics Requirements: 17-18 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs
- MATH 360 - Statistical Methods Credits: 3 hrs

One course from the following:

- Any 200- or higher level course off ered by the Mathematics Department not oriented specifically toward a teaching specialization (3 hrs)
- MATH 121 - Calculus II Credits: 4 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:

- An additional course from the Biology, Chemistry, Physics or Psychology department. This course need not be intended for majors in that discipline ( $3-5 \mathrm{hrs}$ )
Option 1: Biology
- An additional course from the Biology, Chemistry, Physics or Psychology department. This course need not be intended for majors in that discipline ( $3-5 \mathrm{hrs}$ )
- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs

Option 11: Chemistry

- An additional course from the Biology, Chemistry, Physics or Psychology department. This course need not be intended for majors in that discipline ( $3-5 \mathrm{hrs}$ )
- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr Select one of the following options:
- CHEM 123-General Chemistry II Credits: 3 hrs
and
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
or
- CHEM 125 - Honors General Chemistry II (Lecture) Credits: 3 hrs
and
- CHEM 126 - Honors General Chemistry II (lab) Credits: 1 hr Option 111: Geology
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs Option IV: Physics
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 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.

## 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 Michigan 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
For specific requirements refer to the General Education Program .
Additional Requirements: 4 hours

- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs Major Requirements: 30 hours

Required Courses: 27 hours

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 303 - Applications in Computer Science Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- COSC 314 - Computational Discrete Structures Credits: 3 hrs
- COSC 342 - Programming Languages for Educators Credits: 3 hrs
- COSC 403 - Seminar and Project Design for Educators Credits: 3 hrs Restricted Electives: 3 hours

One course from the following:

## Other options by department permission

- COSC 105 - Everyday Computing and Social Responsibility Credits: 3 hrs
- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- SOCL 462 - Complex Organizations Credits: 3 hrs
- STS 150 - Understanding Technology Credits: 3 hrs

Professional Education Requirements: 39 hours

Pre-Admission Phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- COSC 306 - Methods of Teaching Computer Science in the Secondary Schools Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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: 133-138 hours

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

## Minor

## 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 endorsment 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 Requirements: 3 hours

- COSC 306 - Methods of Teaching Computer Science in the Secondary Schools Credits: 3 hrs Required Courses: 21 hours
- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 303 - Applications in Computer Science Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- COSC 342 - Programming Languages for Educators Credits: 3 hrs Minor Total: 24 hours

Note:

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

## 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 Courses: 15 hours

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 231 - Internet-based Computing Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs

Restricted Elective Courses: 6 hours

Two courses from the following:

- COSC 314 - Computational Discrete Structures Credits: 3 hrs
- COSC 315 - Symbolic Computing Credits: 3 hrs
- COSC 321 - Computer Organization II Credits: 3 hrs
- COSC 341 - Programming Languages Credits: 3 hrs
- COSC 374 - Applied Cryptography Credits: 3 hrs
- COSC 405 - Switching Theory Credits: 3 hrs
- COSC 421 - Systems Programming Credits: 3 hrs
- COSC 422 - Introduction to Microprocessors Credits: 3 hrs
- COSC 423 - Computer Operating Systems Credits: 3 hrs
- COSC 436 - Web Programming Credits: 3 hrs
- COSC 439 - Computing Network Principles Credits: 3 hrs
- COSC 444 - Foundations of Automata and Languages Credits: 3 hrs
- COSC 445 - Compiler Construction Credits: 3 hrs
- COSC 456 - Computer Graphics Credits: 3 hrs
- COSC 457 - Computer Game Programming Credits: 3
- COSC 461 - Heuristic Programming Credits: 3 hrs
- COSC 471 - Database Principles Credits: 3 hrs
- COSC 481 - Software Engineering and Senior Project Credits: 3 hrs Minor Total: 21 hours

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

## Economics Programs

## Economics

Address: 703-A Pray-Harrold
Phone: 734.487.3395
E-mail: raouf.hanna@emich.edu
Web site: http://www.emich.edu/economics/

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

Economics Programs and Courses

## Major

## Actuarial Science and Economics Major - Economics

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
For specific requirements refer to the General Education Program .
Major Requirements: 62 hours
Required Courses: 12 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs

One course from the following:

- COSC 237 - Computer Programming and Numeric Methods (3 hrs)
- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs One course from the following:
- ECON 361 - Corporation Finance Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs

Required Mathematics Courses: 26 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 372 - Problems in Actuarial Studies I Credits: 2 hrs
- MATH 471 - Probability and Statistics II Credits: 3 hrs
- MATH 472 - Problems in Actuarial Studies II Credits: 2 hrs

Required Economics Courses: 18 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs
- ECON 405 - Economic Analysis for Business Credits: 3 hrs
- ECON 415 - Introduction to Econometrics Credits: 3 hrs

Restricted Elective Courses: 6 hours
Any combination of electives from:

- Courses at the 300 -level or above in mathematics
- ECON 340 - Money and Banking Credits: 3 hrs
- ECON 445 - Economic Fluctuations and Forecasting Credits: 3 hrs
- ECON 455 - Cost-Benefit Analysis Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.

Note:

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

## 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 88 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
For specific requirements refer to the General Education Program .

Major Requirements: 69 hours
Business and Business Administration Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293-Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs Required Courses: 18 hours
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs One course from the following:
- ECON 310-Economic Statistics Credits: 3 hrs
- ECON 415 - Introduction to Econometrics Credits: 3 hrs

One course from the following:

- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs

Restricted Elective Courses: 15 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 businessapplications. 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 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.
*Students also may meet the statistics requirement by taking DS265 Business Statistics I. If students elect DS265, they are not eligible to take ECON310 Economic Statistics; ECON415 Introduction to Econometrics is recommended in this case.

## 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 Requirements: 40 hours
For specific requirements refer to the General Education Program .

Additional Requirements: 3-4 hours

One course from the following:

- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs

Major Requirements: 30 hours
Required Courses: 15 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs One course from the following:

BBA students electing the Economics Major, who take DS265 first may not take ECON310 for credit toward the major. Instead they must take another economics class, ECON415 preferred. BBA student electing the Economics Major who take ECON310 first will be excused from the requirement of completing DS265 in the Business Core (in this case, a COB waiver may be required for graduation audit).

- ECON 310 - Economic Statistics Credits: 3 hrs
- ECON 415 - Introduction to Econometrics Credits: 3 hrs Elective Courses: 15 hours

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 theywish to pursue. Inquire at the Department of Economics regarding suggested concentrations, suggested career paths and course selection.
Minor Requirements: 20 hours
University Elective Courses: 30-31hours
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.

## Minor

## Economics Minor

An Economics minor provides a useful combination with majors in Business, Mathematics, Political Science, Pre-Law, Philosophy and related fields.

Required Course: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 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

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

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 375 - Economic History of the United States Credits: 3 hrs Restricted Elective Courses: 11 hours

Eleven hours of electives in economics including at least two courses from the following:

- ECON 300 - Contemporary Economic Issues Credits: 3 hrs
- ECON 303 - Consumer Economics Credits: 3 hrs
- ECON 327 - Economics of Poverty, Inequality and Discrimination Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- ECON 480 - International Economics Credits: 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.
Students seeking a teaching certificate in Social Studies with an endorsement in Economics are required, in addition to the Economics courses above, to take HIST481 The Teaching of Social Studies, as their teaching methods course.

## English Language and Literature Programs

## English Language and Literature

Address: 612 Pray-Harrold
Phone: 734.487.4220
E-mail: rebecca.sipe@emich.edu
Web site: www.emich.edu/english/
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
English Language and Literature Programs and Courses

## Major

## Creative Writing Major

## General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .
Major Requirements: 33 hours
Required Courses: 24 hours

- CRTW 201 - Introduction to Creative Writing Credits: 3 hrs
- CRTW 426 - Contemporary Forms Credits: 3 hrs
- ENGL 300 - Writing about Literature Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs

The following courses must be taken twice

- CRTW 335 - Creative Writing Credits: 3 hrs
- CRTW 422 - Writer's Workshop Credits: 3 hrs

Restricted Elective Courses: 9 hours

Three courses selected from the following:

- 300-400 level courses in CRTW, LITR, ENGL, JRNL, LING
- ART 428 - Seminar in 20th Century Art Credits: 3 hrs
- CTAR 360 - Dramatic Composition Credits: 3 hrs
- PHIL 460 - Philosophy of Language Credits: 3 hrs

Minor Requirements: 20 hours
University Elective Courses: 31 hours
Program Total: 124 hours

Notes:
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 course must be repeated as a different topic.

## English Language Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Courses: 19-21 hours

- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs

One course from the following:

- LING 205 - English Words Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs

One course from the following:

- ENGL 484 - Seminar in Written Communications Credits: 3 hrs
- LING 497 - Independent Study Credits: 1 hr
- LING 498 - Independent Study Credits: 2 hrs
- LING 499 - Independent Study Credits: 3 hrs

Restricted Elective Courses: 9-12 hours

- Any LING course approved by the undergraduate adviser.
- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 387 - Cooperative Education in English Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 427 - Technical Editing Credits: 3 hrs
- ENGL 428 - Writing Computer Documentation Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs
- JRNL 453 - Advanced Reporting Credits: 3 hrs

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
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Courses: 12 hours

- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- LING 401 - Introduction to Linguistic Science Credits: 3 hrs
- LING 420 - Introduction to Phonetics and Phonology Credits: 3 hrs
- LING 425 - Introduction to Syntax Credits: 3 hrs

Restricted Elective Courses: 9 hours
Three courses from the following:

- LING 205 - English Words Credits: 3 hrs
- LING 310 - African American Language Credits: 3 hrs
- LING 322 - Languages of the World Credits: 3 hrs
- LING 340 - Language and Culture Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 415 - Women and Language Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs
- LING 426 - Topics in Linguistics Credits: 3 hrs
- LING 434 - The Linguistic Analysis of Literature Credits: 3 hrs
- PHIL 460 - Philosophy of Language Credits: 3 hrs

Elective Courses: 9 hours
Three courses from the following:

- 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
- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- GEOG 360-Cultural Geography Credits: 3 hrs
- LING 425 - Introduction to Syntax Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- PHIL 281 - Symbolic Logic Credits: 3 hrs
- PSY 301 - Introductory Experimental Psychology Credits: 4 hrs
- SOCL 310 - Social Stratification Credits: 3 hrs
- SOCL 336 - Social and Cultural Change Credits: 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 Children's Literature and Drama/Theatre for the Young

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 36 hours
Required Courses: 21 hours

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- CHL 208 - Multicultural Children's Literature Credits: 3 hrs
- CTAR 327 - Plays for the Young Credits: 3 hrs

Courses not chosen to fulfill program requirements may be taken as restrictive electives:
One course from the following:

- CHL 351 - World Mythology Credits: 3 hrs
- CHL 352 - Folk Literature: Ballads and Folk Tales Credits: 3 hrs

One course from the following:

- CHL 450 - Children's Literature:Criticism and Response Credits: 3 hrs
- CHL 451 - Writing about Controversy in Literature for the Young Credits: 3 hrs One course from the following:
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs

One course from the following:

- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 324-Oral Interpretation of Children's Literature Credits: 3 hrs Restricted Elective Courses: 15 hours

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 course.

- CHL 351 - World Mythology Credits: 3 hrs
- CHL 352 - Folk Literature: Ballads and Folk Tales Credits: 3 hrs
- CHL 450 - Children's Literature:Criticism and Response Credits: 3 hrs
- CHL 451 - Writing about Controversy in Literature for the Young Credits: 3 hrs
- CHL 453 - Children's Literature: Picture Books Credits: 3 hrs
- CHL 454 - Children's Literature: Fiction Credits: 3 hrs
- CHL 455 - Adolescent Literature Credits: 3 hrs
- CTAO 210 - Interpretative Reading Credits: 3 hrs
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAR 324 - Oral Interpretation of Children's Literature Credits: 3 hrs
- CTAR 326 - Drama/Theatre for Persons with Disabilities Credits: 2 hrs
- CTAR 327 - Plays for the Young Credits: 3 hrs
- CTAR 329 - Performing Theatre for the Young Credits: 3 hrs
- CTAR 497 - Independent Study Credits: 1 hr
- CTAR 498 - Independent Study Credits: 2 hrs
- CTAR 499 - Independent Study Credits: 3 hrs
- LITR 251 - The Bible as Literature Credits: 3 hrs
- LITR 497 - Independent Study Credits: 1 hr
- LITR 498 - Independent Study Credits: 2 hrs
- LITR 499 - Independent Study Credits: 3 hrs

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, Media and Theatre Arts. Portfolios will be maintained by the Children's Literature faculty. Students whose portfolios are found to be deficient will be asked to make up that deficiency and submit new materials.

Minor Requirements: 20 hours
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.
*These courses satisfy both general education requirements and requirements of the major. In order to avoid taking excess hours, students are advised to take these courses, or approved substitutes from another institution, as part of the general education requirements.

## 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
For specific requirements refer to the General Education Program.

Major Requirements: 33 hours

Required Courses: 27 hours

- JRNL 213 - Introduction to Journalism Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 310 - Digital Journalism Credits: 3 hrs
- JRNL 313 - History of American Journalism Credits: 3 hrs
- JRNL 453 - Advanced Reporting Credits: 3 hrs
- JRNL 455 - Journalism Law and Ethics Credits: 3 hrs

Restricted Elective Courses: 9 hours

Three courses from the following:

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 204 - Photographic Communication Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- JRNL 305 - Editorial, Column, and Review Writing Credits: 3 hrs
- JRNL 309 - Sports Writing Credits: 3 hrs
- JRNL 311 - Newspaper Layout and Design Credits: 3 hrs
- JRNL 312 - Introduction to Public Relations Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 387 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs
- JRNL 454 - Contemporary Problems in Journalism Credits: 3 hrs
- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 488 - Internship in Journalism/Public Relations Credits: 1 hr
- JRNL 489 - Internship in Journalism/Public Relations Credits: 2 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 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.

## Language, Literature and Writing Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.

Major Requirements: 36 hours
Required Courses: 9 hours

- ENGL 300 - Writing about Literature Credits: 3 hrs
- LING 201-An Introduction to Linguistics Credits: 3 hrs
- LITR 490 - Senior Seminar Credits: 3 hrs

Restricted Elective Courses: 27 hours

One course from the following:

- LING 401 - Introduction to Linguistic Science Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs One course from the following:
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs

One course from the following:

- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs

One course from the following:

- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs One course from Literature before 1800 :
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs One course from Literature after 1800:
- LITR 309 - The Development of American Literature Credits: 3 hrs
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs One course from Major Authors:
- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs

One course from Genre:

- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs

One course from Literature and Culture:

- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs

Minor Requirements: 20 hours
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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 39 hours
Required Courses: 9 hours

- ENGL 300 - Writing about Literature Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs Restricted Elective Courses: 30 hours

One course from Genre:

- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs

One course from Language Study:

- LING 401 - Introduction to Linguistic Science Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs One course from Multicultural Literature:
- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs One course from British Literature:
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs One course from American Literature:
- LITR 309- The Development of American Literature Credits: 3 hrs
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs One course from Major Authors:
- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs

One course from Genre:

- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs

One course from Young Adult Literature:

- CHL 455 - Adolescent Literature Credits: 3 hrs

One course from Writing Pedagogy:

- ENGL 408 - Writing for Writing Teachers Credits: 3 hrs One course from Writing, Literature or Language Study:

Choose one additional course from any Restricted Electives category or from one of the following:

- CRTW 335-Creative Writing Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs
- LING 310 - African American Language Credits: 3 hrs
- LING 340 - Language and Culture Credits: 3 hrs

Professional Studies: 39 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 Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305- Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- ENGL 409-Teaching English in the Secondary Schools Credits: 3 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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: 138-143 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
For specific requirements refer to the General Education Program.

Major Requirements: 27 hours
Required Basic Literature Course: 3 hours

- ENGL 300 - Writing about Literature Credits: 3 hrs
- LITR 490 - Senior Seminar Credits: 3 hrs

Restricted Elective Courses: 21 hours
One course from the following:

- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs

One course from Literature before 1800:

- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs

One course from Literature from the Nineteenth Century:

- LITR 309 - The Development of American Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs One course from Literature from the Twentieth Century:
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs Course from Major Authors:
- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs

One course from Genre:

- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs

One course from Literature and Culture:

- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs

Elective Courses: 3 hours
Choose any additional course from the restricted electives above or one course from the following:

- LITR 210 - Introduction to Shakespeare Credits: 3 hrs
- LITR 251-The Bible as Literature Credits: 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
For specific requirements refer to the General Education Program.

Major Requirements: 30 hours
Required Courses: 21 hours

- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 427-Technical Editing Credits: 3 hrs
- ENGL 484 - Seminar in Written Communications Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 312 - Introduction to Public Relations Credits: 3 hrs

Restricted Elective Courses: 9 hours
Three courses from the following:

- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 204 - Photographic Communication Credits: 3 hrs
- CMT 436 - Electronic Publishing Technology Credits: 3 hrs
- CRTW 335 - Creative Writing Credits: 3 hrs
- CRTW 422 - Writer's Workshop Credits: 3 hrs
- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 387 - Cooperative Education in English Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- ENGL 428 - Writing Computer Documentation Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- ENGL 487 - Cooperative Education in English Credits: 3 hrs
- ENGL 488 - Internship in Technical Writing Credits: 1 hr
- ENGL 489 - Internship in Technical Writing Credits: 2 hrs
- ENGL 490 - Internship in Technical Writing Credits: 3 hrs
- JRNL 305 - Editorial, Column, and Review Writing Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 387 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs
- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 488 - Internship in Journalism/Public Relations Credits: 1 hr
- JRNL 489 - Internship in Journalism/Public Relations Credits: 2 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 3 hrs
- STS 201 - Microcomputer Applications in Technology Credits: 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.

## Public Relations Major (Interdisciplinary- English)

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 Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 48 hours
Required Fundamental Courses: 21 hours

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 312 - Introduction to Public Relations Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs

Required Advanced Courses: 18 hours

- CTAC 475 - Research in Speech Communication Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 408 - Case Studies in Public Relations Credits: 3 hrs One course from the following
- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 3 hrs One course from the following:
- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs

One course from the following:

- CTAC 354-Organizational Communication Credits: 3 hrs
- CTAC 357 - Interviewing as Communication Credits: 3 hrs

Restricted Elective Courses: 9 hours

- CMT 204 - Photographic Communication Credits: 3 hrs
- CMT 436 - Electronic Publishing Technology Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 311 - Newspaper Layout and Design Credits: 3 hrs
- JRNL 455 - Journalism Law and Ethics Credits: 3 hrs

One course from the following:

- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- CTAT 241 - Radio-Television-Film Announcing Credits: 3 hrs One course from the following:
- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs Maximum of six-hours from the following:
- CTAC 387 - Cooperative Education in Communication Credits: 1 hr
- CTAC 388 - Cooperative Education in Communication Credits: 2 hrs
- CTAC 389 - Cooperative Education in Communication Credits: 3 hrs
- CTAC 487 - Internship in Communication Credits: 1 hr
- CTAC 488 - Internship in Communication Credits: 2 hrs
- CTAC 489 - Internship in Communication Credits: 3 hrs
- JRNL 387 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 487 - Cooperative Education in Journalism/Public Relations Credits: 3 hrs
- JRNL 488 - Internship in Journalism/Public Relations Credits: 1 hr
- JRNL 489 - Internship in Journalism/Public Relations Credits: 2 hrs
- JRNL 490 - Internship in Journalism/Public Relations Credits: 3 hrs

Minor Requirements: 20 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.

## Technical Communication Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 30 hours
Required Courses: 21 hours

- CMT 436 - Electronic Publishing Technology Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 427 - Technical Editing Credits: 3 hrs
- ENGL 428 - Writing Computer Documentation Credits: 3 hrs
- ENGL 484 - Seminar in Written Communications Credits: 3 hrs

Restricted Elective Courses: 9 hours
Two courses from the following:

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CADM 105 - Computer Applications for Industry Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 204 - Photographic Communication Credits: 3 hrs
- COSC 111 - Introduction to Programming Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 387 - Cooperative Education in English Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- ENGL 487 - Cooperative Education in English Credits: 3 hrs
- ENGL 488 - Internship in Technical Writing Credits: 1 hr
- ENGL 489 - Internship in Technical Writing Credits: 2 hrs
- ENGL 490 - Internship in Technical Writing Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- STS 201 - Microcomputer Applications in Technology Credits: 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.

## Minor

## Children's Literature Minor

## Required Courses: 21 hours

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- CHL 208 - Multicultural Children's Literature Credits: 3 hrs One course from the following:
- CHL 450 - Children's Literature:Criticism and Response Credits: 3 hrs
- CHL 451 - Writing about Controversy in Literature for the Young Credits: 3 hrs One course from the following:
- CHL 351 - World Mythology Credits: 3 hrs
- CHL 352 - Folk Literature: Ballads and Folk Tales Credits: 3 hrs Three credit hours from the following:
- CHL 351 - World Mythology Credits: 3 hrs
- CHL 352 - Folk Literature: Ballads and Folk Tales Credits: 3 hrs
- CHL 450 - Children's Literature:Criticism and Response Credits: 3 hrs
- CHL 451 - Writing about Controversy in Literature for the Young Credits: 3 hrs
- CHL 453 - Children's Literature: Picture Books Credits: 3 hrs
- CHL 454 - Children's Literature: Fiction Credits: 3 hrs
- CHL 455 - Adolescent Literature Credits: 3 hrs
- LITR 251 - The Bible as Literature Credits: 3 hrs
- LITR 497 - Independent Study Credits: 1 hr
- LITR 498 - Independent Study Credits: 2 hrs
- LITR 499 - Independent Study Credits: 3 hrs

Minor Total: 21 hours
Notes:
All minors must have at least six hours of course work at the 300-level or above.

## Creative Writing Minor

Required Courses: 15 hours

- CRTW 201 - Introduction to Creative Writing Credits: 3 hrs
- CRTW 426 - Contemporary Forms Credits: 3 hrs

Three courses ( 9 hours) from the following.
At least one of the following courses needs to be repeated as a different topic:

- CRTW 335 - Creative Writing Credits: 3 hrs
- CRTW 422 - Writer's Workshop Credits: 3 hrs

Restricted Elective Courses: 6 hours

Two courses selected from the following:

- 300-400 level courses in CRTW, LITR, ENGL, JRNL or LING
- ART 428 - Seminar in 20th Century Art Credits: 3 hrs
- CTAR 360 - Dramatic Composition Credits: 3 hrs
- PHIL 460 - Philosophy of Language Credits: 3 hrs

Minor Total: 21 hours
Notes:

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

- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs

One course from the following:

- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs

One course from the following:

- LING 205 - English Words Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs Restricted Elective Courses: 9 hours
- Any other LING course approved by the undergraduate adviser.
- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 387 - Cooperative Education in English Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 427 - Technical Editing Credits: 3 hrs
- ENGL 428 - Writing Computer Documentation Credits: 3 hrs
- ENGL 484 - Seminar in Written Communications Credits: 3 hrs
- ENGL 487 - Cooperative Education in English Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs
- JRNL 453 - Advanced Reporting Credits: 3 hrs
- LING 310 - African American Language Credits: 3 hrs
- LING 340 - Language and Culture Credits: 3 hrs
- LING 497 - Independent Study Credits: 1 hr

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

- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- LING 401 - Introduction to Linguistic Science Credits: 3 hrs

Restricted Elective Courses: 15 hours

- Any LING course not already taken.
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 413-The Poetry of Chaucer Credits: 3 hrs

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

- JRNL 213 - Introduction to Journalism Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 307 - Copy Editing Credits: 3 hrs
- JRNL 313 - History of American Journalism Credits: 3 hrs
- JRNL 455 - Journalism Law and Ethics Credits: 3 hrs

Restricted Elective Courses: 6 hours

Two courses from the following:

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 204 - Photographic Communication Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- CTAT 334 - Radio-Television News Credits: 3 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- JRNL 305 - Editorial, Column, and Review Writing Credits: 3 hrs
- JRNL 309 - Sports Writing Credits: 3 hrs
- JRNL 310 - Digital Journalism Credits: 3 hrs
- JRNL 311 - Newspaper Layout and Design Credits: 3 hrs
- JRNL 312 - Introduction to Public Relations Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs
- JRNL 453 - Advanced Reporting Credits: 3 hrs
- JRNL 454 - Contemporary Problems in Journalism Credits: 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

- ENGL 300 - Writing about Literature Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs

Restricted Elective Courses: 18 hours
One course from the following:

- CHL 208 - Multicultural Children's Literature Credits: 3 hrs
- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs

One period course from the following:

- LITR 309- The Development of American Literature Credits: 3 hrs
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs One course from major author, genre or literature and culture:
- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs One Linguistics course from the following:
- LING 205 - English Words Credits: 3 hrs
- LING 310 - African American Language Credits: 3 hrs
- LING 340 - Language and Culture Credits: 3 hrs
- LING 401 - Introduction to Linguistic Science Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs

One writing course from the following:

- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs

A second writing course from the following:

- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 314 - Writing for Public Relations Credits: 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 - Secondary and K12 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: 15 hours

- ENGL 300 - Writing about Literature Credits: 3 hrs
- ENGL 328 - Writing, Style and Technology Credits: 3 hrs
- ENGL 408 - Writing for Writing Teachers Credits: 3 hrs
- ENGL 409-Teaching English in the Secondary Schools Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs

Restricted Elective Courses: 15 hours
Multicultural Literature:
One course from the following:

- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs

Period Literature:
One course from the following:

- LITR 309- The Development of American Literature Credits: 3 hrs
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs Young Adult Literature:

One course from the following:

- CHL 455 - Adolescent Literature Credits: 3 hrs

Major Author, Genre, or Culture:
One course from the following:

- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs

Language Study
One course from the following:

- LING 401 - Introduction to Linguistic Science Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs
- LING 421 - The History of the English Language Credits: 3 hrs

Minor Total: 30 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.

## Literature Minor

Required Courses: 3 hours

- ENGL 300 - Writing about Literature Credits: 3 hrs

Restricted Elective Courses: 15 hours
One course from the following:

- LITR 361 - Studies in Native American Literature Credits: 3 hrs
- LITR 362 - Studies in African American Literature Credits: 3 hrs One course from the following:
- LITR 309- The Development of American Literature Credits: 3 hrs
- LITR 310 - Modern American Literature Credits: 3 hrs
- LITR 312 - English Literature in the Middle Ages Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- LITR 315 - Restoration and 18th-Century Literature Credits: 3 hrs
- LITR 316 - Romantic Rebellion in Britain 1798-1832 Credits: 3 hrs
- LITR 317 - Victorian and Edwardian Literature 1832-1914 Credits: 3 hrs
- LITR 360 - Recent Trends in British and American Literature Credits: 3 hrs

One course from the following:

- LITR 405 - Shakespeare Credits: 3 hrs
- LITR 413 - The Poetry of Chaucer Credits: 3 hrs
- LITR 450 - Major Authors Credits: 3 hrs

One course from the following:

- LITR 411 - Studies in Epic and Romance Credits: 3 hrs
- LITR 420 - Studies in the British Novel Credits: 3 hrs
- LITR 421 - Studies in the American Novel Credits: 3 hrs
- LITR 422 - Studies in the Novel in Global Perspective Credits: 3 hrs
- LITR 430 - Studies in Drama Credits: 3 hrs
- LITR 440 - Genre Studies Credits: 3 hrs
- LITR 470 - Studies in Poetry Credits: 3 hrs

One course from the following:

- LITR 400 - Narrative in Literature and Film Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- LITR 480 - Studies in Literature and Culture Credits: 3 hrs

Elective Courses: 3 hours
Choose any additional course from the restricted electives above or one course from the following:

- LITR 210 - Introduction to Shakespeare Credits: 3 hrs
- LITR 251 - The Bible as Literature Credits: 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

- ENGL 328 - Writing, Style and Technology Credits: 3 hrs One course from the following:
- CRTW 335 - Creative Writing Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs

One course from the following:

- CRTW 422 - Writer's Workshop Credits: 3 hrs
- ENGL 417 - Writing about Controversies Credits: 3 hrs
- ENGL 424 - Technical Writing Credits: 3 hrs

Restricted Elective Courses: 12 hours
Twelve hours from the following:

- Any course listed as a requirement above including repeats of CRTW335 Creative Writing or CRTW422 Writer's Workshop, and ENGL225 Writing in a Changing World (3 hrs)
- CTAR 360 - Dramatic Composition Credits: 3 hrs
- CTAR 361 - Dramatic Writing Credits: 2 hrs
- CTAT 344 - Continuity Writing for Electronic Media Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs
- ENGL 427 - Technical Editing Credits: 3 hrs
- ENGL 428 - Writing Computer Documentation Credits: 3 hrs
- ENGL 444 - Writing for the World Wide Web Credits: 3 hrs
- JRNL 215 - News Writing and Reporting Credits: 3 hrs
- JRNL 306 - Feature Writing Credits: 3 hrs
- JRNL 423 - Magazine Article Writing Credits: 3 hrs

Minor Requirements: 21 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.

## Geography and Geology Programs

## Geography and Geology

Address: 205 Strong
Phone: 734.487.0218
E-mail: geogandgeol@emich.edu
Web site: http://www.emich.edu/public/geo/welcome.html
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.

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.

Minor, Historic Preservation - Northwestern State Community College
Geography and Geology Programs and Courses

## Major

## 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 there of, 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.

For specific requirements refer to the General Education Program .
Additional Requirements: 12 hours

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- MATH 120 - Calculus I Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

Major Requirements: 30-32 hours

Required Courses: 27 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 300 - Introduction to Hydrology Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- ESSC 425 - Severe and Unusual Weather Credits: 3 hrs
- ESSC 448 - Hydrogeology Credits: 3 hrs
- ESSC 497 - Independent Study Credits: 1 hr

Restricted Elective Courses: 3-4 hours
Three to four hours from the following:

- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 331 - Paleontology Credits: 4 hrs
- ESSC 370 - Glacial Geology Credits: 4 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- ESSC 448 - Hydrogeology Credits: 3 hrs
- ESSC 497 - Independent Study Credits: 1 hr

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.

## Earth Science Major-Secondary Teacher Certification

Successful completion of this course of studies, in the context of other program requirements, qualfies 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

For the specific requirements refer to the General Education Program .
Additional Requirements: 16-17 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

One course from the following:

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs

Major Requirements: 33 hours

Required Courses: 33 hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 331 - Paleontology Credits: 4 hrs
- ESSC 406 - The Nature of Science Credits: 1 hr

One course from the following:

- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 370 - Glacial Geology Credits: 4 hrs

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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 9 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- ESSC 347 - Methods for Teaching Secondary Earth Science Credits: 3 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 1ll: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.

Notes:

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

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

For specific requirements refer to the General Education Program .
Major Requirements: 33-34 hours
Required Courses: 18 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 227 - Topographic Maps Credits: 2 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 276 - Principles of Geographic Information Systems Credits: 3 hrs One course from the following:
- GEOG 100 - Human Geosciences Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 360 - Cultural Geography Credits: 3 hrs

Specialization Courses: 9-10 hours

Three courses from one of the following areas of specialization:
Geographic Techniques

- ESSC 303 - Field Geography Credits: 3 hrs
- ESSC 485 - Introduction to Remote Sensing Credits: 3 hrs
- GEOG 376 - Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 476 - Advanced Geographic Information Systems Credits: 3 hrs
- GEOG 480-Geographic Information Systems Projects Credits: 1-3 hrs Physical Geography
- ESSC 250 - Introduction to Coastal Processes Credits: 3 hrs
- ESSC 300 - Introduction to Hydrology Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 350 - Biogeography Credits: 3 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- ESSC 425 - Severe and Unusual Weather Credits: 3 hrs
- ESSC 450 - Lake and Coastal Management Credits: 3 hrs

Human Geography

- GEOG 212 - Geography of Travel and Tourism Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 333 - Settlement Geography Credits: 3 hrs
- GEOG 361-Geography of Population Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GEOG 441 - Transportation Geography and Planning Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs Regional Geography
- GEOG 314-Geography of Russia and Neighboring States Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- GEOG 319 - Geography of Europe Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- GEOG 321 - Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs

Restricted Elective Courses: 30-31 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.

## Geography 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
For specific requirements refer to the General Education Program .
Major Requirements: 32 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 331 - Paleontology Credits: 4 hrs

Minor Requirements: 20 hours
University Elective Courses: 32 hours

Note:

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

## 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

For specific requirements refer to the General Education Program .
Additional Requirements: 9 hours

- A course in economics, if not included in the minor (3 hrs)
- HIST 102 - Western Civilization, 1648 to World War I Credits: 3 hrs
- HIST 103-20th-Century Civilization Credits: 3 hrs

Major Requirements: 30-31 hours
Required Courses: 15 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 313-Geography of Michigan Credits: 2 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs

Restricted Elective Courses: 15-16 hours

Regional Geography
Two courses from the following:

- GEOG 111 - Regions and Resources Credits: 3 hrs
- GEOG 314 - Geography of Russia and Neighboring States Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- GEOG 319 - Geography of Europe Credits: 3 hrs
- GEOG 321 - Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs

One course from each of the following three areas: ( $9-10$ hours) total
Geographic Techniques

- ESSC 303 - Field Geography Credits: 3 hrs
- GEOG 276 - Principles of Geographic Information Systems Credits: 3 hrs Physical Geography
- ESSC 250 - Introduction to Coastal Processes Credits: 3 hrs
- ESSC 300 - Introduction to Hydrology Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 350 - Biogeography Credits: 3 hrs

Human Geography

- GEOG 100 - Human Geosciences Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 333 - Settlement Geography Credits: 3 hrs
- GEOG 360-Cultural Geography Credits: 3 hrs
- GEOG 361 - Geography of Population Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs

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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- HIST 481 - The Teaching of Social Studies Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 20-21 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.

## 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

For specific requirements refer to the General Education Program .
Major Requirements: 57 hours
Required Courses: 30 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 227 - Topographic Maps Credits: 2 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 276 - Principles of Geographic Information Systems Credits: 3 hrs
- GEOG 360-Cultural Geography Credits: 3 hrs

One course from the following:

- GEOG 100 - Human Geosciences Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs

One course from the following:

- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 441 - Transportation Geography and Planning Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs

Two courses from the following:

- GEOG 314 - Geography of Russia and Neighboring States Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- GEOG 319 - Geography of Europe Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- GEOG 321 - Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs

Concentration Courses: 21 hours

- GEOG 112 - Introduction to Travel and Tourism Credits: 3 hrs
- GEOG 113 - Foundations of Guest Service Credits: 3 hrs
- GEOG 212 - Geography of Travel and Tourism Credits: 3 hrs
- GEOG 315-Travel and Tourism: The European Scene Credits: 3 hrs
- GEOG 336-Tourism and Socioeconomic Development Credits: 3 hrs
- GEOG 445 - Cultural Tourism Resources Credits: 3 hrs
- GEOG 446 - Heritage Interpretation and Tourism Credits: 3 hrs

Elective Courses: 6 hours
Six hours from the following:

- CTAC 274 - Intercultural Communication Credits: 3 hrs
- ESSC 114 - National Parks and Monuments Credits: 2 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- GEOG 115 - Observing the Human Landscape Credits: 2 hrs
- GEOG 387 - Cooperative Education in Geography Credits: 3 hrs
- GEOG 487 - Cooperative Education in Geography Credits: 3 hrs
- HLED 210 - Standard American Red Cross First Aid Credits: 2 hrs
- HRM 103 - Introduction to the Hospitality Industry Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- THRC 100-Orientation to Therapeutic Recreation Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
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.

## 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
For specific requirements refer to the General Education Program .
Major Requirements: 32 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 331 - Paleontology Credits: 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
For specific requirements refer to the General Education Program .
Major Requirements: 65-67 hours

- Field Hydrogeology (2 hrs)
*see note
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 300 - Introduction to Hydrology Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 355 - Field Geology I Credits: 2 hrs
- ESSC 356 - Field Geology II Credits: 3 hrs
- ESSC 448 - Hydrogeology Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs

One course from the following:

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs

One course from the following:

- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 17-19 hours

Program Total: 124 hours
Notes:

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
For specific requirements refer to the General Education Program .
Major Requirements: 69 hours
Required Courses: 57-59 hours

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 331 - Paleontology Credits: 4 hrs
- ESSC 355 - Field Geology I Credits: 2 hrs
- ESSC 356 - Field Geology II Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs

One course from the following:

- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs

One course from the following:

- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

Elective Courses: 9-12 hours
Three courses from the following:

- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 370 - Glacial Geology Credits: 4 hrs
- ESSC 387 - Cooperative Education in Geoscience Credits: 3 hrs
- ESSC 428 - Optical Mineralogy Credits: 3 hrs
- ESSC 430 - Petroleum Geology Credits: 3 hrs
- ESSC 439 - Economic Geology Credits: 3 hrs
- ESSC 448 - Hydrogeology Credits: 3 hrs
- ESSC 470 - Quantitative Methods in Geography and Geology Credits: 3 hrs
- ESSC 487 - Cooperative Education in Geoscience Credits: 3 hrs
- ESSC 488 - Internship Credits: 4 hrs
- ESSC 489 - Internship Credits: 5 hrs
- ESSC 490 - Internship Credits: 6 hrs
- ESSC 499 - Independent Study Credits: 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.

## 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
For specific requirements refer to General Education Program .
Major Requirements: 36 hours
Required Courses: 27 hours

- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- GPLN 216 - Readings in Urban Planning Credits: 2 hrs
- GPLN 276 - Principles of Geographic Information Systems Credits: 3 hrs
- GPLN 306-Comprehensive Planning and Zoning Credits: 3 hrs
- GPLN 401 - Planning/ Preservation Graphics Credits: 3 hrs
- GPLN 410 - Site Planning Studio Credits: 3 hrs
- GPLN 435 - History of Urban Form and Function Credits: 3 hrs
- GPLN 495 - Environmental Assessment and Planning Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs

Restricted Elective Courses: 9 hours
Nine hours from the following selected in consultation with the advising coordinator:

- ESSC 303 - Field Geography Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 376-Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GEOG 441 - Transportation Geography and Planning Credits: 3 hrs
- GEOG 476 - Advanced Geographic Information Systems Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 387 - Cooperative Education Credits: 3 hrs
- GPLN 409 - Professional Practice for Planners Credits: 3 hrs
- GPLN 487 - Cooperative Education Credits: 3 hrs
- GPLN 488 - Internship Credits: 4 hrs
- GPLN 489 - Internship Credits: 5 hrs
- GPLN 490 - Internship Credits: 6 hrs
- GPLN 497 - Independent Study Credits: 1 hrs
- GPLN 498 - Independent Study Credits: 2 hrs
- GPLN 499 - Independent Study Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs

Minor Requirements: 20 hours
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.

## Minor

## 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

- ESSC 485 - Introduction to Remote Sensing Credits: 3 hrs
- GEOG 276 - Principles of Geographic Information Systems Credits: 3 hrs or
- GPLN 276 - Principles of Geographic Information Systems Credits: 3 hrs
- GEOG 376-Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GHPR 401 - Planning/ Preservation Graphics Credits: 3 hrs
or
- GPLN 401 - Planning/ Preservation Graphics Credits: 3 hrs

Restricted Elective Courses: 5 hours
Five hours from the following:

- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CADM 231 - Computer Graphic Programming for Industry Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CNST 206 - Surveying Credits: 3 hrs
- ESSC 227 - Topographic Maps Credits: 2 hrs
- ESSC 355 - Field Geology I Credits: 2 hrs
- ESSC 387 - Cooperative Education in Geoscience Credits: 3 hrs
- ESSC 487 - Cooperative Education in Geoscience Credits: 3 hrs
- ESSC 488 - Internship Credits: 4 hrs
- ESSC 489 - Internship Credits: 5 hrs
- ESSC 490 - Internship Credits: 6 hrs
- IS 417 - Systems Analysis and Design Credits: 3 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs

One course from the following:

- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- IS 215 - End-User Computing Credits: 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

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 250 - Introduction to Coastal Processes Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 350 - Biogeography Credits: 3 hrs
- ESSC 450 - Lake and Coastal Management Credits: 3 hrs

Restricted Elective Courses: 6 hours

Six hours from the following:

- ESSC 208 - Natural Environmental Hazards Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 330 - Sedimentology and Stratigraphy Credits: 4 hrs
- ESSC 495 - Environmental Assessment and Planning Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- GPLN 495 - Environmental Assessment and Planning Credits: 3 hrs

Minor Total: 22 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
Students, in consultation with the minor adviser, may choose other elective courses not listed above.

## Earth Science Minor

Required Courses: 17 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs

Restricted Elective Courses: 3-4 hours

## One course from the following:

- ESSC 476 - Geographic Information Systems (3 hrs)
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- ESSC 327 - Soil Science Credits: 3 hrs
- ESSC 331 - Paleontology Credits: 4 hrs
- ESSC 370 - Glacial Geology Credits: 4 hrs
- ESSC 424 - Climatology Credits: 3 hrs
- ESSC 425 - Severe and Unusual Weather Credits: 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.

## Earth Science Minor-Secondary, K-12 and Special EducationSecondary 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 Course: 22-25 hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- ESSC 347 - Methods for Teaching Secondary Earth Science Credits: 3 hrs
- ESSC 406 - The Nature of Science Credits: 1 hr

Minor Total: 22-25 hours

Notes:

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.

## Environmental Analysis Minor

Required Courses: 24 hours

- ESSC 459 - Aquifer Analysis Credits: 3 hrs
- ESSC 460 - Contaminant Hydrology Credits: 3 hrs
- ESSC 470 - Quantitative Methods in Geography and Geology Credits: 3 hrs
- ESSC 495 - Environmental Assessment and Planning Credits: 3 hrs
or
- GPLN 495 - Environmental Assessment and Planning Credits: 3 hrs
- GEOG 376 - Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs One course from the following:
- ESSC 250 - Introduction to Coastal Processes Credits: 3 hrs
- ESSC 485 - Introduction to Remote Sensing Credits: 3 hrs

Minor Requirements: 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

- GEOG 276 - Principles of Geographic Information Systems Credits: 3 hrs
or
- GPLN 276 - Principles of Geographic Information Systems Credits: 3 hrs
- GEOG 376-Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 405 - Aerial Photo Interpretation Credits: 3 hrs
- GEOG 476 - Advanced Geographic Information Systems Credits: 3 hrs
- GEOG 480-Geographic Information Systems Projects Credits: 1-3 hrs Restricted Elective Courses: 6-7 hours

One course from the following:

- ESSC 108 - Earth Science for Nonscience Majors Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs

One course from the following:

- ESSC 485 - Introduction to Remote Sensing Credits: 3 hrs
- GEOG 361 - Geography of Population Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 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

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- GEOG 110 - World Regions Credits: 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.

## Geography Minor - Secondary and K-12 Teacher Certification

Successful completion of this minor, in the context of other program requirements, qualifies the student for recommendation for endorsement in German, certification code CB. The Michigan Test for Teacher Certification (MTTC) covering this field is \#08, "Geography."

Required Courses: 18 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 313 - Geography of Michigan Credits: 2 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- HIST 481-The Teaching of Social Studies Credits: 3 hrs

Elective Courses: 2-3 hours
$T$ wo or three additional hours in GEOG approved by the adviser.
Minor Total: 20-21 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

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 326 - Structural Geology Credits: 4 hrs
- ESSC 329 - Igneous and Metamorphic Petrology Credits: 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

- ART 429 - History of American Architecture Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 333 - Settlement Geography Credits: 3 hrs
- GEOG 360 - Cultural Geography Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GHPR 475 - Architectural Nomenclature Credits: 2 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs

Restricted Elective Courses: 4-6 hours
Students, in consultation with the program advisers, may choose other elective courses not listed below.

Two courses from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 150 - Introductory Archaeology Credits: 3 hrs
- CNST 201 - Construction Systems Credits: 3 hrs
- CNST 228 - Construction Graphics Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 313 - Geography of Michigan Credits: 2 hrs
- GEOG 345 - Geography of Resorts Credits: 2 hrs
- GHPR 401 - Planning/ Preservation Graphics Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- GPLN 401 - Planning/ Preservation Graphics Credits: 3 hrs
- HIST 305 - Native American History Credits: 3 hrs
- HIST 313 - Michigan History Credits: 3 hrs
- HIST 362 - United States Urban History Credits: 3 hrs
- IDE 222 - History of Interiors Credits: 3 hrs
- PSY 350 - Environmental Psychology Credits: 3 hrs
- SOCL 306 - The Urban Community Credits: 3 hrs
- TEDU 105 - History of Industrial Technology Credits: 3 hrs

Minor Requirements: 27-29 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.
Students, in consultation with the program advisers, may choose other elective courses not listed above.

## Tourism Geography Minor

Required Courses: 21-22 hours

- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 112 - Introduction to Travel and Tourism Credits: 3 hrs
- GEOG 113 - Foundations of Guest Service Credits: 3 hrs
- GEOG 212 - Geography of Travel and Tourism Credits: 3 hrs
- GEOG 445 - Cultural Tourism Resources Credits: 3 hrs
- GEOG 446 - Heritage Interpretation and Tourism Credits: 3 hrs One course from the following:
- ESSC 108 - Earth Science for Nonscience Majors Credits: 3 hrs
- GEOG 315 - Travel and Tourism: The European Scene Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 336-Tourism and Socioeconomic Development Credits: 3 hrs
- GEOG 441 - Transportation Geography and Planning Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 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

- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- GPLN 216 - Readings in Urban Planning Credits: 2 hrs
- GPLN 306-Comprehensive Planning and Zoning Credits: 3 hrs
- GPLN 435 - History of Urban Form and Function Credits: 3 hrs

Restricted Elective Courses: 9 hours
Nine hours from the following selected in consultation with the advising coordinator.

- ESSC 303 - Field Geography Credits: 3 hrs
- GEOG 332 - Urban Geography Credits: 3 hrs
- GEOG 376-Geographic Information Systems Analysis Credits: 3 hrs
- GEOG 441 - Transportation Geography and Planning Credits: 3 hrs
- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 276 - Principles of Geographic Information Systems Credits: 3 hrs
- GPLN 387 - Cooperative Education Credits: 3 hrs
- GPLN 401 - Planning/ Preservation Graphics Credits: 3 hrs
- GPLN 409 - Professional Practice for Planners Credits: 3 hrs
- GPLN 410 - Site Planning Studio Credits: 3 hrs
- GPLN 488 - Internship Credits: 4 hrs
- GPLN 489 - Internship Credits: 5 hrs
- GPLN 490 - Internship Credits: 6 hrs
- GPLN 495 - Environmental Assessment and Planning Credits: 3 hrs
- GPLN 497 - Independent Study Credits: 1 hrs
- GPLN 498 - Independent Study Credits: 2 hrs
- GPLN 499 - Independent Study Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs

Minor Total: 20 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.

# History and Philosophy Programs 

## History and Philosophy

History and Philosophy<br>Address: 701 Pray-Harrold<br>Phone: 734.487.1018<br>E-mail: kmehuron@emich.edu<br>Web site: www.emich.edu/historyphilosophy

Students of History, Social Science, or Social Studies are prepared to pursue doctoral or professional degrees in higher education. Many of our students pursue degrees that will lead to certification to teach in secondary schools. Law school is a traditional path taken by a sizeable number of history graduates. Students seeking work within the historical profession seek a graduate degree in the field. Our students are well-prepared for doctoral programs in history, programs in archival work, public history, and historic preservation.

Students of Philosophy receive a firm grounding in the history of Western and Eastern Philosophy. Graduates of the philosophy program master the reading, critical thinking, and analytical skills essential to success in any profession. Their abilities to think and write clearly are qualities much sought after by employers. Some of our students pursue a Ph.D. in philosophy and become philosophy professors themselves. Our students also have the skills to pursue graduate education in professional fields such as law. Philosophy is one of the top two or three academic disciplines whose students score highest on the Law School Admissions Test. Because the skills developed in the study of philosophy are applicable to any profession, students who want to specialize in another field often choose a minor in philosophy to complement their major.

Students in the programs offered by this department prepare for success in a variety of positions in education or with local, state, national and international governmental and private agencies. Our students also develop a sound foundation for graduate study in the humanities, or in such applied fields as law, religion, and business. Additional educational opportunities are offered regularly through the honors program, cross-listed courses with the women's and gender studies program, overseas travel-study programs and other off-campus enrichment experiences.

History and Philosophy Programs and Courses

## Major

## History Major

General Education Requirements: 40 hours
For specific requirements refer to theGeneral Education Program .
Major Requirements: 30 hours
Required Courses: 9 hours

- HIST 300 - Researching and Writing History Credits: 3 hrs One course from the following:
- HIST 101 - Western Civilization to 1648 Credits: 3 hrs
- HIST 102 - Western Civilization, 1648 to World War I Credits: 3 hrs
- HIST 103-20th-Century Civilization Credits: 3 hrs

One course from the following:

- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs

Restricted Elective Courses: 15 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 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. HIST 100 The Comparative Study of Religion and HIST 481 The Teaching of Social Studies may not be counted toward the major.
Minor Requirements: 20 hours
University Elective Courses: 34 hours
Program Total: 124 hours

## 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) or economics (CA). 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
For specific requirements refer to the General Education Program .
Major Requirements: 33-36 hours
Required Courses: 21-24 hours

- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs

One course from the following:

- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs

One course from the following:
See History adviser for more options.

- ECON 375 - Economic History of the United States Credits: 3 hrs
- HIST 471 - Social and Intellectual History of 19th-Century Europe Credits: 3 hrs One option from the following:

Option 1:

- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs

Option 11

- HIST 101 - Western Civilization to 1648 Credits: 3 hrs
- HIST 102 - Western Civilization, 1648 to World War I Credits: 3 hrs
- HIST 103-20th-Century Civilization Credits: 3 hrs

Elective Courses: 12 hours

Six hours of history courses 300-level or above in one of the following areas and three hours in each of the remaining areas:
A. United States and Canada
B. Europe (includes Russia and ancient Greece and Rome)
C. Africa, Asia and Latin America (includes Middle East and ancient Near East, including HIST302)

For a current list of classes that count for each area, consult the History Section website or a History undergraduate adviser.
Professional Studies: 39 hours
Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- HIST 481 - The Teaching of Social Studies Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 20-21 hours
Select from geography, political science or economics.
Program Total: 132-136 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 five core areas, with a minimum of twelve credit hours at the 300 - or 400 -level.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Students must select a minimum of three hours from each of the five core areas:

1. Logic and Reasoning: 3-9 hours

At least one couse from the following:

- PHIL 120 - Introduction to Critical Reasoning Credits: 3 hrs
- PHIL 130 - Introduction to Logic Credits: 3 hrs
- PHIL 181 - Logic and Model Theory Credits: 3 hrs
- PHIL 281 - Symbolic Logic Credits: 3 hrs

11. History and Philosophy: 3-9 hours

At least one course from the following:

- PHIL 330 - History of Philosophy: Ancient Credits: 3 hrs
- PHIL 331 - History of Philosophy: Modern Credits: 3 hrs
- PHIL 332 - History of Philosophy: 19th Century Credits: 3 hrs

1ll. Values: 3-24 hours
At least one course from the following:

- PHIL 212 - Philosophy of Art Credits: 3 hrs
- PHIL 220 - Ethics Credits: 3 hrs
- PHIL 221 - Business Ethics Credits: 3 hrs
- PHIL 223 - Medical Ethics Credits: 3 hrs
- PHIL 225 - Political Philosophy Credits: 3 hrs
- PHIL 260 - Existentialism Credits: 3 hrs
- PHIL 310-Aesthetics Credits: 3 hrs
- PHIL 355 - Philosophy of Law Credits: 3 hrs
- PHIL 370 - Philosophy and Narrative Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- PHIL 470 - Twentieth Century European Philosophy Credits: 3 hrs
IV. Epistemology and Metaphysics: 3-27 hours

At least one course from the following:

- PHIL 215 - Philosophy of Religion Credits: 3 hrs
- PHIL 325 - Theory of Knowledge Credits: 3 hrs
- PHIL 375-Metaphysics Credits: 3 hrs
- PHIL 380 - Philosophy of Science Credits: 3 hrs
- PHIL 390 - Phenomenology Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- PHIL 442 - Philosophy of Mind Credits: 3 hrs
- PHIL 460 - Philosophy of Language Credits: 3 hrs
- PHIL 471 - Early Analytic Philosophy Credits: 3 hrs
- PHIL 475 - Philosophy of Mathematics Credits: 3 hrs
V. Eastern/Global: 3-9 hours

At least one course from the following:

- PHIL 226 - Feminist Theory Credits: 3 hrs
- PHIL 228 - Global Ethics Credits: 3 hrs
- PHIL 291 - Introduction to Asian Philosophy Credits: 3 hrs
- PHIL 391 - Philosophy of Early China Credits: 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
Notes:

Eac $h$ 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. *Only one of PHIL120 Introduction to Critical Reasoning or PHIL130 Introduction to Logic 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.

## Social Studies Group Major (with a Minor in Economics, 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, economics (CA), 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
For specific requirements refer to the General Education Program.
Major/Minor Requirements: 53-57 hours
Social Studies Major with an Economics Minor: 56 hours
Core Courses: 30 hours

- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 320-Geography of the United States and Canada Credits: 3 hrs
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113-American Government Honors Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs

Restricted Elective Courses: 6 hours

- Two electives from any of the four RX disciplines at any level (Consult a social studies adviser) (6 hrs) Economics Minor: 20 hours
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 375 - Economic History of the United States Credits: 3 hrs Restricted Elective Courses: 11 hours

Eleven hours of electives in economics including at least two courses from the following:

- ECON 300 - Contemporary Economic Issues Credits: 3 hrs
- ECON 303 - Consumer Economics Credits: 3 hrs
- ECON 327 - Economics of Poverty, Inequality and Discrimination Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Social Studies with a Geography Minor: 53 hours
Core Courses: 27 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113 - American Government Honors Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs

Restricted Elective Courses: 6 hours

- Two electives from any of the four RX disciplines at any level (consult a social studies adviser) (6 hrs) Geography Minor: 15 hours
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 313 - Geography of Michigan Credits: 2 hrs
- GEOG 320-Geography of the United States and Canada Credits: 3 hrs

Elective Courses: 5 hours

- Two courses in GEOG approved by the Geography adviser (one must be a three credit hour class). Social Studies Major with a History Minor: 54 hours

Core Courses: 24 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs or
- PLSC 113 - American Government Honors Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs Restricted Elective Courses: 9 hours
- Three electives from any of the four RX disciplines at any level (consult a social studies adviser) (9 hrs) History Minor: 21 hours
** T hree upper-level (300-400) history courses, one each in:
A. United States and Canada
B. Europe (includes Russia and ancient Greece and Rome)
C. Africa, Asia and Latin America (includes Middle East and ancient Near East, including HIST302)
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs

Social Studies Major with a Political Science Minor: 57 hours
Core Courses: 33 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113 - American Government Honors Credits: 3 hrs Restricted Elective Courses: 15 hours
- One electives from any of the four RX disciplines at any level (consult a social studies adviser) (3 hrs)
- Four courses of restricted electives in political science to be chosen in consultation with a political science adviser.
Political Science Minor: 9 hours
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs Two courses from the following:
- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs

Multicultural/International Elective: 3 hours

- Geography Minors: Select one course from the economics, history or political sciences courses below:
- History Minors: Select one course from the economics, geography or political sciences courses below:
- Political Science Minors: Select one course from the economics, history or geography courses below:
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- ECON 327 - Economics of Poverty, Inequality and Discrimination Credits: 3 hrs
- ECON 328 - Economics of Women Credits: 3 hrs
- ECON 332 - Urban Economics Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 317 - History and Geography of Spanish America Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- GEOG 321-Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs
- HIST 301 - The Religions of South and East Asia Credits: 3 hrs
- HIST 302 - Near Eastern and Western Religions Credits: 3 hrs
- HIST 305 - Native American History Credits: 3 hrs
- HIST 306 - Hinduism Credits: 3 hrs
- HIST 307 - Buddhism Credits: 3 hrs
- HIST 315 - History of Black Americans Credits: 3 hrs
- HIST 319 - The Civil Rights Movement in the United States Credits: 3 hrs
- HIST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- HIST 339 - Arab-Israeli Conflict Credits: 3 hrs
- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 355 - Latin America: Colonial Period Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 375 - Modern India Credits: 3 hrs
- HIST 441 - The Far East to 1800 Credits: 3 hrs
- HIST 442 - Modern China Credits: 3 hrs
- HIST 443 - Modern Japan Credits: 3 hrs
- HIST 457 - History of Mexico Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- HIST 481-The Teaching of Social Studies Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Program Total: 135-139 hours
Note:
*HIST 300 is a required writing intensive course.
${ }^{* *}$ For a current list of classes that count for each area, consult the History Section website or a History undergraduate adviser.

## Social Studies Major

The Social Studies program, formerly called Social Science, serves students who intend to declare a major in Social Studies for Secondary Teaching. This major may also be elected by students seeking an interdisciplinary course of study in the social sciences.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 36 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 320-Geography of the United States and Canada Credits: 3 hrs
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 300 - Researching and Writing History Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113 - American Government Honors Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs Minor in Economics, Geography, History or Political Science: 20-24 Hours

Because some of the required classes in the major can also be counted towards the minor, students will be required to take anywhere from one to four substitute classes for the major. Additional substitute courses, if needed, can be taken in any of the four disciplines, at any level.
One of the classes must be taken from the following list:
Economics:

- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- ECON 327 - Economics of Poverty, Inequality and Discrimination Credits: 3 hrs
- ECON 328 - Economics of Women Credits: 3 hrs
- ECON 332 - Urban Economics Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Geography:

- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 317 - History and Geography of Spanish America Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- GEOG 321-Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs

History:

- HIST 301 - The Religions of South and East Asia Credits: 3 hrs
- HIST 302 - Near Eastern and Western Religions Credits: 3 hrs
- HIST 306 - Hinduism Credits: 3 hrs
- HIST 307 - Buddhism Credits: 3 hrs
- HIST 310 - France since 1789 Credits: 3 hrs
- HIST 315 - History of Black Americans Credits: 3 hrs
- HIST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 335 - History of Women in Europe Credits: 3 hrs
- HIST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- HIST 339 - Arab-Israeli Conflict Credits: 3 hrs
- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 349 - South Africa, 1500-Present Credits: 3 hrs
- HIST 355 - Latin America: Colonial Period Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 375 - Modern India Credits: 3 hrs
- HIST 441 - The Far East to 1800 Credits: 3 hrs
- HIST 442 - Modern China Credits: 3 hrs
- HIST 443 - Modern Japan Credits: 3 hrs
- HIST 444 - China and its Nomadic Neighbors Credits: 3 hrs
- HIST 457 - History of Mexico Credits: 3 hrs

Political Science:

- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 242 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

University Elective Courses: 24-28 hours
Program Total: 124 hours

Notes:
Students who declared a Social Science major before Fall 2008 have until 2014 to complete their degrees under the old requirements, or they may elect to complete the new requirements.
*History advisers may substitute for HIST 300 Writing Intensive research methods courses from other programs or institutions as they judge reasonable.

## Minor

## Area Studies Minor - Africa

## Required Area Courses: 15 hours

- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs
- HIST 347 - Sub-Saharan Africa to 1885 Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs

Area Elective Courses: 5 hours
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.
Five hours from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- GEOG 518 - Problems of Sub-Saharan Africa Credits: 2 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs

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

- ECON 385 - Economic Development Credits: 3 hrs
- GEOG 318 - Geography of Asia Credits: 3 hrs
- HIST 555 - Studies in Far Eastern History Credits: 2 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs

One course from the following:

- HIST 441 - The Far East to 1800 Credits: 3 hrs
- HIST 442 - Modern China Credits: 3 hrs

Area Elective Courses: 6 hours
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.
Six hours from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- ART 421 - History of Asian Art Credits: 3 hrs
- HIST 301 - The Religions of South and East Asia Credits: 3 hrs
- HIST 306 - Hinduism Credits: 3 hrs
- HIST 307 - Buddhism Credits: 3 hrs
- HIST 326 - History and Geography of Modern Asia Credits: 3 hrs
- HIST 441 - The Far East to 1800 Credits: 3 hrs
- HIST 442 - Modern China Credits: 3 hrs

Minor Requirements: 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

- ANTH 233 - Cultures of Mesoamerica and the Caribbean Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- GEOG 321 - Geography of Latin America Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs

One course from the following:

- HIST 355 - Latin America: Colonial Period Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 457 - History of Mexico Credits: 3 hrs

Area Elective Courses: 5 hours

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.
Five hours from the following.

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 233 - Cultures of Mesoamerica and the Caribbean Credits: 3 hrs
- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- GEOG 317 - History and Geography of Spanish America Credits: 3 hrs
- GEOG 513 - South American Lands Credits: 2 hrs
- HIST 317 - History and Geography of Spanish America Credits: 3 hrs
- HIST 355 - Latin America: Colonial Period Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 457 - History of Mexico Credits: 3 hrs
- HIST 560 - Studies in Latin American History Credits: 2 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs
- SPNH 351 - Survey of Spanish-American Literature Credits: 3 hrs
- SPNH 445 - Spanish-American Prose Credits: 3 hrs
- SPNH 454 - Modernism in Spanish America Credits: 3 hrs

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 - Middle East and North Africa

Required Area Courses: 9 hours

- ECON 385 - Economic Development Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs

One course from the following:

- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs

Area Elective Courses: 11 hours
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.

## Eleven hours from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- CHL 351 - World Mythology Credits: 3 hrs
- ECON 585 - Economis Growth and Development Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs
- HIST 302 - Near Eastern and Western Religions Credits: 3 hrs
- HIST 339 - Arab-Israeli Conflict Credits: 3 hrs
- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 543 - Nationalism and Modernization in the Middle East and North Africa Credits: 3 hrs Minor Requirements: 20 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

- GEOG 314 - Geography of Russia and Neighboring States Credits: 3 hrs
- HIST 344 - Russia since 1855 Credits: 3 hrs
- HIST 547-19th Century Ideological Background of the Russian Revolution Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs

Area Elective Courses: 8 hours

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.
Eight hours from the following:

- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- GEOG 316 - History and Geography of Modern Europe Credits: 3 hrs
- HIST 332 - Modern Europe 1815-1919 Credits: 3 hrs
- HIST 333 - Europe since 1919 Credits: 3 hrs
- HIST 343 - Russia to 1855 Credits: 3 hrs
- HIST 550-20th Century Russia Credits: 2 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs

Minor Total: 20 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:
*see note

- HIST 101 - Western Civilization to 1648 Credits: 3 hrs
- HIST 102 - Western Civilization, 1648 to World War I Credits: 3 hrs
- HIST 103-20th-Century Civilization Credits: 3 hrs

One course from the following:
*see note

- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 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

Notes:
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

## History Minor-Secondary, K-12 and Special EducationSecondary 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 12-18 hours

- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- HIST 481 - The Teaching of Social Studies Credits: 3 hrs

One option from the following:
Option I:

- HIST 101 - Western Civilization to 1648 Credits: 3 hrs
- HIST 102 - Western Civilization, 1648 to World War I Credits: 3 hrs
- HIST 103-20th-Century Civilization Credits: 3 hrs

Option II:

- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 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 (includes Russia and ancient Greece and Roman history)
C. Africa, Asia and Latin America (includes Middle East and ancient Near East, including HIST302)

Minor Total: 21-27 hours

Note:

All minors must have at least six hours of course work at the 300-level or above.
*If not required by student's major.
**For a current list of classes that count for each area, consult the History Section website or a History undergraduate adviser.

## 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 five core areas, with a minimum of nine credit hours at the $300-$ or 400 -level.

Students must select a minimum of three hours from each of the five core areas:

1. Logic and Reasoning: 3-6 hours

At least one course from the following:

- PHIL 120 - Introduction to Critical Reasoning Credits: 3 hrs
- PHIL 130-Introduction to Logic Credits: 3 hrs
- PHIL 181 - Logic and Model Theory Credits: 3 hrs
- PHIL 281 - Symbolic Logic Credits: 3 hrs

11. History and Philosophy: 3-12 hours

At least one course from the following:

- PHIL 330 - History of Philosophy: Ancient Credits: 3 hrs
- PHIL 331 - History of Philosophy: Modern Credits: 3 hrs
- PHIL 332 - History of Philosophy: 19th Century Credits: 3 hrs

1ll. Values: 3-12 hours

At least one course from the following:

- PHIL 212 - Philosophy of Art Credits: 3 hrs
- PHIL 220 - Ethics Credits: 3 hrs
- PHIL 221 - Business Ethics Credits: 3 hrs
- PHIL 223 - Medical Ethics Credits: 3 hrs
- PHIL 225 - Political Philosophy Credits: 3 hrs
- PHIL 260 - Existentialism Credits: 3 hrs
- PHIL 310 - Aesthetics Credits: 3 hrs
- PHIL 355 - Philosophy of Law Credits: 3 hrs
- PHIL 370 - Philosophy and Narrative Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- PHIL 470 - Twentieth Century European Philosophy Credits: 3 hrs
IV. Epistemology and Metaphysics: 3-12 hours

At least one course from the following:

- PHIL 215 - Philosophy of Religion Credits: 3 hrs
- PHIL 325-Theory of Knowledge Credits: 3 hrs
- PHIL 375 - Metaphysics Credits: 3 hrs
- PHIL 380 - Philosophy of Science Credits: 3 hrs
- PHIL 390 - Phenomenology Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- PHIL 442 - Philosophy of Mind Credits: 3 hrs
- PHIL 460 - Philosophy of Language Credits: 3 hrs
- PHIL 471 - Early Analytic Philosophy Credits: 3 hrs
- PHIL 475 - Philosophy of Mathematics Credits: 3 hrs
V. Eastern/Global: 3-9 hours

At least one course from the following:

- PHIL 226 - Feminist Theory Credits: 3 hrs
- PHIL 228 - Global Ethics Credits: 3 hrs
- PHIL 291 - Introduction to Asian Philosophy Credits: 3 hrs
- PHIL 391 - Philosophy of Early China Credits: 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

Notes:

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. *Only one of PHIL120 Introduction to Critical Reasoning or PHIL130 Introduction to Logic 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.

## Religious Studies Minor

Required Area Courses: 3 hours

- HIST 100-The Comparative Study of Religion Credits: 3 hrs

Restricted Elective Courses: 12 hours

## Four courses from the following.

- ANTH 338 - Anthropology of Religion Credits: 3 hrs
- HIST 301-The Religions of South and East Asia Credits: 3 hrs
- HIST 302 - Near Eastern and Western Religions Credits: 3 hrs
- HIST 303 - History of American Religion Credits: 3 hrs
- HIST 306 - Hinduism Credits: 3 hrs
- HIST 307 - Buddhism Credits: 3 hrs
- LITR 251 - The Bible as Literature Credits: 3 hrs
- PHIL 215 - Philosophy of Religion Credits: 3 hrs
- PSY 225 - Psychology of Religion Credits: 3 hrs
- SOCL 320 - Sociology of Religion Credits: 3 hrs

Elective Courses: 5-6 hours

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.
Two courses from the restricted elective courses list or from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ART 107 - Art History Survey I Credits: 3 hrs
- ART 340 - History of Classical Art Credits: 3 hrs
- ART 341 - History of Renaissance Art Credits: 3 hrs
- CHL 351 - World Mythology Credits: 3 hrs
- CLAS 301-Classical Mythology Credits: 3 hrs
- HIST 327 - Europe in Early Middle Ages 400-1050 Credits: 3 hrs
- HIST 328 - Europe in Late Middle Ages 1050-1400 Credits: 3 hrs
- HIST 330 - Europe in the Renaissance and Reformation Credits: 3 hrs
- LITR 309- The Development of American Literature Credits: 3 hrs
- LITR 314 - English Renaissance Prose and Poetry 1500-1660 Credits: 3 hrs
- PHIL 220 - Ethics Credits: 3 hrs
- PHIL 260 - Existentialism Credits: 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.

## Mathematics Programs

## Mathematics

Address: 515 Pray-Harrold
Phone: 734.487.1444
E-mail: bette.warren@emich.edu
Web site: www.math.emich.edu
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 mater'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 MATH1 19 after credit for MATH120 has been earned.

Mathematics Programs and Courses

## Major

## Actuarial Science and Economics Major - Mathematics

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
For specific requirements refer to the General Education Program .
Major Requirements: 62 hours
Required Courses: 12 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs One course from the following:
- COSC 237 - Computer Programming and Numeric Methods (3 hrs)
- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs One course from the following:
- ECON 361 - Corporation Finance Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs

Required Mathematics Courses: 26 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 372 - Problems in Actuarial Studies I Credits: 2 hrs
- MATH 471 - Probability and Statistics II Credits: 3 hrs
- MATH 472 - Problems in Actuarial Studies II Credits: 2 hrs Required Economics Courses: 18 hours
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs
- ECON 405 - Economic Analysis for Business Credits: 3 hrs
- ECON 415 - Introduction to Econometrics Credits: 3 hrs

Restricted Elective Courses: 6 hours

Any combination of electives from:

- Courses at the 300 -level or above in mathematics
- ECON 340 - Money and Banking Credits: 3 hrs
- ECON 445 - Economic Fluctuations and Forecasting Credits: 3 hrs
- ECON 455 - Cost-Benefit Analysis Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
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.

## 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
For specific requirements refer to the General Education Program.

Additional Requirements: 3 hours
One course from the following:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs Major Requirements: 37 hours

Required Courses: 25 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 211 - Introduction to Mathematical Proof Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs

One course from the following:

- MATH 411 - Abstract Algebra Credits: 3 hrs
- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs Restricted Elective Courses: 12 hours

Twelve hours from the following:

- MATH 311 - Mathematical Problem Solving Credits: 3 hrs
- MATH 319 - Mathematical Modeling Credits: 3 hrs
- MATH 325 - Differential Equations Credits: 3 hrs
- MATH 341 - College Geometry Credits: 3 hrs
- MATH 372 - Problems in Actuarial Studies I Credits: 2 hrs
- MATH 407 - Elementary Number Theory Credits: 3 hrs
- MATH 409 - Cryptology Credits: 3 hrs
- MATH 411 - Abstract Algebra Credits: 3 hrs
- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 418 - Modeling with Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs
- MATH 424 - Introduction to Complex Variables Credits: 3 hrs
- MATH 425 - Mathematics for Scientists Credits: 3 hrs
- MATH 436 - Introduction to Numerical Analysis Credits: 3 hrs
- MATH 460 - Applied Survey Sampling Credits: 3 hrs
- MATH 461 - Linear Regression Analysis Credits: 3 hrs
- MATH 462 - Design and Analysis of Experiments Credits: 3 hrs
- MATH 471 - Probability and Statistics II Credits: 3 hrs
- MATH 472 - Problems in Actuarial Studies II Credits: 2 hrs
- MATH 474 - Applied Statistics Credits: 3 hrs

Minor Requirements: 20 hours
University Elective Courses: 24 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 CertificateElementary and Special Education-Elementary Teacher Certification


#### Abstract

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 Certifi cation (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 For specific requirements refer to the General Education Program.


Additional Requirements: 18-19 hours

- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 30 hours
Required Courses 22 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 210 - Algebra for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 240 - Geometry for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 301 - Advanced Topics in Elementary Mathematics Credits: 3 hrs
- MATH 403 - Current Research in Elementary School Mathematics Credits: 3 hrs

Restricted Elective Courses: 8 hours
Eight hours from the following, with at least three hours at the 300- or 400-level:

- Other mathematics courses as approved by the advising coordinator for elementary mathematics education.
- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- MATH 382-Technology in the Mathematics Classroom Credits: 3 hrs
- MATH 401 - Mathematics and Its History for Elementary/Middle School Teachers Credits: 3 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 8 hours
May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253 - Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 10 hours
May be taken with Phase I courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303-Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirement: 0-24 hours
Select a minor from the approved list of minors for elementary and special education-elementary programs.
Program Total: 147-172 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
For specific requirements refer to the General Education Program.
Additional Requirements: 3 hours
One of the following:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs

Major Requirements: 37 hours
Required Course: 28 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 461 - Linear Regression Analysis Credits: 3 hrs
- MATH 462 - Design and Analysis of Experiments Credits: 3 hrs
- MATH 471 - Probability and Statistics II Credits: 3 hrs

Restricted Elective Courses: 9 hours
At least nine hours from the following, with at least six hours from the applied statistics electives:
Applied Statistics Elective Courses

- MATH 460 - Applied Survey Sampling Credits: 3 hrs
- MATH 474 - Applied Statistics Credits: 3 hrs

Mathematics Elective Courses
One course from the following:

- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 418 - Modeling with Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs
- MATH 472 - Problems in Actuarial Studies II Credits: 2 hrs

Minor Requirements: 20 hours
University Elective Courses: 24 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-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
For specific requirements refer to the General Education Program.

Additional Requirements: 3 hours
One course from the following:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs

Major Requirements: 34 hours
Required Area Courses 28 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 211 - Introduction to Mathematical Proof Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 341 - College Geometry Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 411 - Abstract Algebra Credits: 3 hrs

Restricted Elective Courses: 6 hours

Six hours from the following:

- MATH 311 - Mathematical Problem Solving Credits: 3 hrs
- MATH 319 - Mathematical Modeling Credits: 3 hrs
- MATH 325 - Differential Equations Credits: 3 hrs
- MATH 372 - Problems in Actuarial Studies I Credits: 2 hrs
- MATH 407 - Elementary Number Theory Credits: 3 hrs
- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs
- MATH 424 - Introduction to Complex Variables Credits: 3 hrs
- MATH 425 - Mathematics for Scientists Credits: 3 hrs
- MATH 471 - Probability and Statistics II Credits: 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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- MATH 306W - Teaching Mathematics in Secondary School Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.

## Minor

## 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:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs

Required Courses: 14-15 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs

One course from the following:

- MATH 211 - Introduction to Mathematical Proof Credits: 3 hrs
- MATH 360 - Statistical Methods Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs

Restricted Elective Courses: 5-6 hours
Five to six hours from the following:

- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 311 - Mathematical Problem Solving Credits: 3 hrs
- MATH 319 - Mathematical Modeling Credits: 3 hrs
- MATH 325 - Differential Equations Credits: 3 hrs
- MATH 341 - College Geometry Credits: 3 hrs
- MATH 360 - Statistical Methods Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 372 - Problems in Actuarial Studies I Credits: 2 hrs
- MATH 407 - Elementary Number Theory Credits: 3 hrs
- MATH 409 - Cryptology Credits: 3 hrs
- MATH 411 - Abstract Algebra Credits: 3 hrs
- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 418 - Modeling with Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs
- MATH 424 - Introduction to Complex Variables Credits: 3 hrs
- MATH 425 - Mathematics for Scientists Credits: 3 hrs
- MATH 436 - Introduction to Numerical Analysis Credits: 3 hrs
- MATH 460 - Applied Survey Sampling Credits: 3 hrs
- MATH 461 - Linear Regression Analysis Credits: 3 hrs
- MATH 462 - Design and Analysis of Experiments Credits: 3 hrs
- MATH 471 - Probability and Statistics II Credits: 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 for the Elementary Teaching CertificateElementary 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

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- MATH 210 - Algebra for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 240 - Geometry for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 301-Advanced Topics in Elementary Mathematics Credits: 3 hrs

Restricted Elective Courses: 5 hours

Five hours from the following, with at least three hours at the 300-or 400-level:

- Or other mathematics courses as approved by the advising coordinator for elementary mathematics education.
- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- MATH 382 - Technology in the Mathematics Classroom Credits: 3 hrs
- MATH 401 - Mathematics and Its History for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 403 - Current Research in Elementary School Mathematics Credits: 3 hrs

Minor Total: 20 hours

## 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 Requirements: 3 hours

One course from the following:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs

Required Course: 14-15 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs

One course from the following:

- MATH 360 - Statistical Methods Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 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

- MATH 460 - Applied Survey Sampling Credits: 3 hrs
- MATH 461 - Linear Regression Analysis Credits: 3 hrs
- MATH 462 - Design and Analysis of Experiments Credits: 3 hrs
- MATH 471 - Probability and Statistics II Credits: 3 hrs
- MATH 474 - Applied Statistics Credits: 3 hrs

Mathematics Elective Courses

- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs
- MATH 211 - Introduction to Mathematical Proof Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs

Minor Total: 26-28 hours
Note:

Students can not count both MATH205 and MATH211 toward the minor.

## Mathematics Minor-K-12, Secondary and Special EducationSecondary 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 Requirements: 3 hours
One course from the following:

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs

Required Courses: 23-24 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 211 - Introduction to Mathematical Proof Credits: 3 hrs
- MATH 341 - College Geometry Credits: 3 hrs

One course from the following:

- MATH 360 - Statistical Methods Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs

One course from the following:

- MATH 304 - Middle School Mathematics Methods and Content Credits: 3 hrs
- MATH 306-Teaching Mathematics in Secondary School Credits: 3 hrs

Restricted Elective Courses: 2-3 hours
Sufficient credits (normally three) to bring the total to 26 hours (not including the COSC requirements):

- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 311 - Mathematical Problem Solving Credits: 3 hrs
- MATH 319 - Mathematical Modeling Credits: 3 hrs
- MATH 325 - Differential Equations Credits: 3 hrs
- MATH 400 - History and Development of Mathematics Credits: 3 hrs
- MATH 407 - Elementary Number Theory Credits: 3 hrs
- MATH 411 - Abstract Algebra Credits: 3 hrs
- MATH 416 - Linear Algebra Credits: 3 hrs
- MATH 420 - Introduction to Real Analysis Credits: 3 hrs
- MATH 424 - Introduction to Complex Variables Credits: 3 hrs

Minor Total: 29 hours

## Music and Dance Programs

## Music and Dance

Address: N101 Alexander
Phone: 734.487.4380
E-mail: jprince@emich.edu
Web site: http://www.emich.edu/musicdance
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 (music major)
- Bachelor of Science (music major or dance majors in pre-dance therapy, studio management, or dance performance)
- The Music Therapy Equivalency certificate
- Master of Music (composition, music education, performance, piano pedagogy)

For a description of graduate programs and courses, see the graduate catalog.
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 (including transfers) should contact the department well in advance to learn when these auditions and examinations, which vary by program, are scheduled.
Address all correspondence to:
Department of Music and Dance
N101 Alexander Music Building
Eastern Michigan University
Ypsilanti, MI 48197

## Advising

Music and Dance students are strongly encouraged to seek advising. Advising sessions are held during the week before open course enrollment each fall or winter term, and additional appointments may be made throughout the year.

Student should contact their major professor for initial advising: the coordinators of 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 Advising
Address: 318 S Porter
Phone: 734.487.4380
E-mail: joanne.mcnamara@emich.edu

## Applied Music

Applied music instruction on a principal instrument is required for all degree programs. Students may be admitted to the $100-\mathrm{level}$ applied music at different degrees of competency; therefore, some students may require more time to achieve the proficiency needed for admission to 400 -level applied music. Permission to advance to 400 -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 | Cello |
| :--- | :--- |
| Clarinet | Euphonium |
| Flute | Guitar |
| Harp | Harpsichord |
| Horn | Oboe |
| Organ | Percussion |
| Piano | Saxophone |
| String Bass | Trombone |
| Trumpet | Tuba |
| Viola | Violin |
| Voice |  |

## 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 music students. These performances may take place in studio classes, informal departmental recitals or formal concerts.
To fulfill requirements for graduation, a senior recital must be approved by an appropriate faculty committee. If chamber music is included on the program, the recitalist must have a principal solo role in the music performed.

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 weekly student recitals. Credit will be received for attendance at any Department of Music and Dance event. Students must be present for an entire event to receive credit. 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, 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.

## EMU Community Music Academy

Students from public schools and the community, as well as EMU students, 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).
Music and Dance Programs and Courses

## Certificate

## 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:
a. Submission of the completed application, non-refundable application fee and all official undergraduate and graduate transcripts to undergraduate admissions in the Office of Admissions.
b. The earned equivalent of a U.S. bachelor's degree in music from an accredited college or University.
c. 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.
d. 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 Courses: 22 hours

- MUSC 103 - Introduction to Music Therapy Credits: 3 hrs
- MUSC 236 - Pre-internship Clinical Training in Music Therapy I Credits: 1 hr
- MUSC 237 - Pre-internship Clinical Training in Music Therapy II Credits: 1 hr
- MUSC 238 - Methods and Materials in Music Therapy Credits: 3 hrs
- MUSC 303 - Music Therapy Clinical Approaches Credits: 2 hrs
- MUSC 304 - Music Therapy Professional Skills Credits: 2 hrs
- MUSC 404 - Psychology of Music Credits: 3 hrs
- MUSC 405 - Music Therapy Research Credits: 3 hrs
- MUSC 427 - Pre-Internship Clinical Training in Music Therapy V Credits: 1 hr
- MUSC 488 - Clinical Training Internship in Music Therapy Credits: 2 hrs

Additional Requirements: $0-15$ 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:

- PEGN dance activity courses or DANC course (2 hrs)
- BIO 326 - Human Physiology Credits: 3 hrs
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 413 - Orchestration Credits: 2 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

Certificate Total: 22 hours
The number of required hours for the certificate depend upon the student's undergraduate degree.
Notes:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

## Major

## 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) predance 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

For specific requirements refer to the General Education Program .
Major Requirements: 53-76 hours

Dance Core: 37 hours

- DANC 107 - Rhythmic Analysis and Dance Accompaniment Credits: 3 hrs
- DANC 208 - Classical Ballet Technique III Credits: 3 hrs
- DANC 209 - Classical Ballet Technique IV Credits: 3 hrs
- DANC 210 - Modern Dance Technique III Credits: 3 hrs
- DANC 211 - Modern Dance Technique lll Credits: 3 hrs
- DANC 245 - Elements of Dance Composition Credits: 3 hrs
- DANC 255 - Dance Production Credits: 3 hrs
- DANC 320 - Dance Workshop Credits: 1 hr
- DANC 350 - History of Dance Credits: 3 hrs
- DANC 354 - Methods and Materials in Teaching of Dance Credits: 3 hrs
- DANC 422 - Dance Workshop Credits: 2 hr
- DANC 450 - Advanced Dance Composition Credits: 4 hrs
- DANC 455 - Seminar in Dance Credits: 2 hrs
- DANC 497 - Directed Study Credits: 1 hr

Select from one of the following tracks:
Track 1: Pre-Dance Therapy(DANC PTHY): 39 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs
- PHED 209 - Bio-Fitness Credits: 2 hrs
- PSY 309 - Social Psychology Credits: 3 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- PSY 361 - Psychotherapy Credits: 3 hrs
- THRC 250 - Fieldwork in Recreation Therapeutic Recreation Credits: 1 hr One course from the following:
- DANC 331 - Service Teaching-Ballet Credits: 1 hr
- DANC 333 - Service Teaching-Modern Dance Credits: 1 hr

One course from the following:

- PSY 321 - Child Psychology Credits: 3 hrs
- PSY 322 - Psychology of Adolescence Credits: 3 hrs
- PSY 323 - Psychology of Human Aging Credits: 3 hrs

One course from the following:

- PSY 362 - The Psychology of Stress and Relaxation Credits: 3 hrs
- PSY 365 - Behavior Modification Credits: 3 hrs

Seven hours from the following:

- CTAR 326 - Drama/Theatre for Persons with Disabilities Credits: 2 hrs
- MUSC 103 - Introduction to Music Therapy Credits: 3 hrs
- PHED 330 - Adapted Physical Education Credits: 3 hrs
- THRC 200 - Recreation for Persons with Disabilities Credits: 3 hrs

Track 11: 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).

- DANC 103 - Tap I Credits: 2 hrs
- DANC 331 - Service Teaching-Ballet Credits: 1 hr
- DANC 333 - Service Teaching-Modern Dance Credits: 1 hr
- DANC 456 - Creative Dance for Children Credits: 2 hrs
- PEGN 102-Aerobic Dance Credits: 1 hr
- PEGN 103 - Ballroom Dance Credits: 1 hr
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs

Track 111: Performance:(DANC PERF): 25 hours

- CTAO 102 - Voice Development Credits: 1 hr
- CTAR 158 - Fundamentals of Acting Credits: 3 hrs
- CTAR 254 - Stage Makeup Credits: 1 hr
- CTAR 457 - Audition Credits: 2 hrs
- CTAR 461 - Musical Theatre Acting Credits: 2 hrs
- DANC 103 - Tap I Credits: 2 hrs
- DANC 201 - Jazz II Credits: 2 hrs
- DANC 320 - Dance Workshop Credits: 1 hr
- DANC 422 - Dance Workshop Credits: 2 hr
- MUSC 232 - Voice Class Credits: 1 hr
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 8-22 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 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 Secondary Provisional Certificate endorsed in music education (K-12), certification code JQ. The Michigan Test for Teacher Certification (MTTC) covering this field is \#99, "Music."

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 72 hours
General Music Courses: 53 hours

- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 211 - Basic Brass Class Credits: 1 hr
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 232 - Voice Class Credits: 1 hr
- MUSC 241 - Percussion Credits: 1 hr
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 261 - Basic String Class: Violin Credits: 1 hr
- MUSC 281 - Basic Woodwind Class Credits: 1 hr
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 327 - Instrumental Conducting Credits: 2 hrs
- MUSC 413 - Orchestration Credits: 2 hrs

Two courses from the following:

- MUSC 212 - Brass Class Credits: 1 hr
- MUSC 262 - String Class: Viola Credits: 1 hr
- MUSC 263 - String Class: Cello and Double Bass Credits: 1 hr
- MUSC 282 - Woodwind Class Credits: 1 hr
- MUSC 283 - Woodwind Class Credits: 1 hr

Large Instrumental Ensembles: 8 hours
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: MUSC149 Marching Band (3hrs).
Applied Music Courses: 16 hours

Senior recital approval is required. Students must enroll in Applied Music during the semester the recital is performed. Keyboard and guitar principals must take AMUS 115 Applied Music (wind/percussion/string insturment) (total of 4 $h r s)$.

- AMUS 116 - Principal Applied Music Credits: $2 / 4$ hrs

4 semesters (minimum): 8 hours

- AMUS 416 - Principal Applied Music Credits: $2 / 4 \mathrm{hrs}$

4 semesters (minimum): 8 hours
Elective Courses: 3 hours
Professional Studies: 33 hours
Pre-Admission phase: The Learner and the Community: 7 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 )
- EDPS 322 - Human Development and Learning Credits: 4 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and Social Context: 6 hours

- MUSC 332 - Instrumental Music in the Public Schools Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Content Methods, Literacy and Technology: 8 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

One course from the following:

- MUSC 333 - Orchestral Methods Credits: 3 hrs
- MUSC 334 - Band Methods Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 496 - Student Teaching Credits: 6 hrs
- EDUC 497 - Student Teaching Credits: 6 hrs

Program Total: 145 hours

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

All Bachelor of Music Education students must pass a program specific screening exam before being approved for student teaching.
All Bachelor of Music Education students must meet an improvisation requirement. The requirement may be met by contract in Applied Music for at least one fall or winter semester (see applied music professor for details), or in one of the following ways:

- MUSC 244 - Jazz Ensemble Credits: 1 hr
- MUSC 305 - Keyboard Skills Credits: 2 hrs
*Other approved improvisation course.
*The above options count toward music electives, and are to be selected with a music department adviser.


## 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 Secondary Provisional Certificate endorsed in music education, K-12 certification code JQ. The Michigan Test for Teacher Certification (MTTC) covering this field is \#99, "Music." At the time of admission, students with voice as a principal instrument must study keyboard and demonstrate the required level of proficiency for graduation; students with keyboard as a principal instrument must study voice and demonstrate the required level of proficiency for graduation; and students with guitar as a principal instrument must study both voice and piano, demonstrating the required level of proficiency on both for graduation.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.

Major Requirements: 68-74 hours
General Music Courses: 52 hours

- Large Vocal Ensembles (8 hrs) Must include at least four semesters of MUSC131
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 128 - Music Literature II Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 241 - Percussion Credits: 1 hr
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 274 - Functional Guitar Credits: 2 hrs
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs
- MUSC 305 - Keyboard Skills Credits: 2 hrs
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 328 - Choral Conducting Credits: 2 hrs
- MUSC 413 - Orchestration Credits: 2 hrs

One course from the following:

- MUSC 211 - Basic Brass Class Credits: 1 hr
- MUSC 212 - Brass Class Credits: 1 hr

One course from the following:

- MUSC 261 - Basic String Class: Violin Credits: 1 hr
- MUSC 262 - String Class: Viola Credits: 1 hr
- MUSC 263 - String Class: Cello and Double Bass Credits: 1 hr

One course from the following:

- MUSC 281 - Basic Woodwind Class Credits: 1 hr
- MUSC 282 - Woodwind Class Credits: 1 hr
- MUSC 283 - Woodwind Class Credits: 1 hr

Applied Music Courses: 16-22 hours
Number of credit hours is determined by audition and principal instrument of choice.
Principal Instrument Courses (Keyboard, Voice or Guitar)
Senior recital approval is required. Students must enroll in applied music during the semester a degree recital is performed.

- AMUS 116 - Principal Applied Music Credits: $2 / 4 \mathrm{hrs}$

4 semesters (minimum): 8 hours

- AMUS 416 - Principal Applied Music Credits: $2 / 4 \mathrm{hrs}$

4 semesters (minimum): 8 hours
Secondary Instrumant Courses (Keyboard, Voice or Guitar)
One option from the following:
Option I
If voice is the principal instrument, take AMUS 115 (keyboard) until the prerequisite for AMUS 415 (keyboard) is met. Option II

If keyboard is the principal instrument, take AMUS 115 (voice) until the prerequisite for AMUS 415 (voice) is met. Option III

If guitar is the principal instrument, take AMUS 115 (keyboard) and AMUS 115 (voice) until the prerequisite for AMUS 415 is met in both instruments.

Professional Studies: 33 hours

Pre-Admission phase: The Learner and the Community: 7 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 )
- EDPS 322 - Human Development and Learning Credits: 4 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 6 hours

- MUSC 330 - Music Education in the Elementary School Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Content Methods, Literacy and Technology: 8 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MUSC 331 - Music Education in the Secondary School Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 496 - Student Teaching Credits: 6 hrs
- EDUC 497 - Student Teaching Credits: 6 hrs

Program Total: 141-147 hours
Notes:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
All Bachelor of Music Education students must pass a program specific screening exam before being approved for student teaching.
All Bachelor of Music Education students must meet an improvisation requirement. The requirement may be met by contract in Applied Music for at least one fall or winter semester (see applied music professor for details), or in one of the following ways:

- MUSC 244 - Jazz Ensemble Credits: 1 hr
- MUSC 305 - Keyboard Skills Credits: 2 hrs
*Other improvisation course.


## 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

For specific requirements refer to the General Education Program.
Major Requirements: 48 hours

General Music Requirements: 34 hours

- Upper-level music theory/literature electives (4 hrs)
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 128 - Music Literature II Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs

Four hours from the following:

- MUSC 317 - Music Composition Credits: 2 hrs
- MUSC 341 - Contrapuntal Techniques Credits: 2 hrs
- MUSC 401 - Music Theory-Literature V Credits: 2 hrs
- MUSC 402 - Music Theory-Literature VI Credits: 2 hrs
- MUSC 404 - Psychology of Music Credits: 3 hrs
- MUSC 413 - Orchestration Credits: 2 hrs
- MUSC 414 - Band Arranging Credits: 2 hrs

Applied Music (principal instrument): 12 hours

- AMUS 415 - Secondary Applied Music Credits: $1 / 2 \mathrm{hrs}$

Ensembles: 2 hours
Minor Requirements: 20 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.

## 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
For specific requirements refer to the General Education Program.

Major Requirements: 82 hours
Applied Music (principal instrument): 32 hours

## *see note

- AMUS 116 - Principal Applied Music Credits: $2 / 4$ hrs

Supporting Courses: 30 hours

- Upper-level music theory/literature electives (4 hrs)
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 128 - Music Literature II Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs

Four hours from the following:

- MUSC 317 - Music Composition Credits: 2 hrs
- MUSC 341 - Contrapuntal Techniques Credits: 2 hrs
- MUSC 401 - Music Theory-Literature V Credits: 2 hrs
- MUSC 402 - Music Theory-Literature VI Credits: 2 hrs
- MUSC 404 - Psychology of Music Credits: 3 hrs
- MUSC 413 - Orchestration Credits: 2 hrs
- MUSC 414 - Band Arranging Credits: 2 hrs

Courses Chosen According to Area of Specialization: 20 hours

1. Guitar

- Ensembles (8 hrs)
- Elective courses in music (4 hrs)
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 327 - Instrumental Conducting Credits: 2 hrs

11. Keyboard:

- Courses chosen in consultation with major professor (4 hrs)
- Ensembles (8 hrs)
may include up to two credit hours of accompanying
- Elective courses in music ( 6 hrs )
- MUSC 326 - Conducting Credits: 2 hrs

111. Strings:

- Elective courses in music (3 hrs)
- MUSC 248 - Orchestra Credits: 1 hr
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 327 - Instrumental Conducting Credits: 2 hrs

One course from the following:
Viola principal:
One course from the following:

- AVLN 111 - Applied Music (1 hr)
- MUSC 261 - Basic String Class: Violin Credits: 1 hr

Violin principal:
One course from the following:

- AVLA 111 - Applied Music (1 hr)
- MUSC 262 - String Class: Viola Credits: 1 hr

Cello principal:
One course from the following:

- ADBS 111 - Applied Music (1 hr)
- MUSC 263 - String Class: Cello and Double Bass Credits: 1 hr

String Bass principal:
One course from the following:

- AVCL111 Applied Music (1 hr)
- MUSC 263 - String Class: Cello and Double Bass Credits: 1 hr
IV. Wind and Percussion
- Elective courses in music (6 hrs)
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 326 - Conducting Credits: 2 hrs

One course from the following:

- MUSC 248 - Orchestra Credits: 1 hr
- MUSC 249 - Band Credits: 1 hr

Minor Requirements: 0 hours
No minor required.
Elective Courses: 2 hours
Program Total: 124 hours
Notes:
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:

- MUSC 244 - Jazz Ensemble Credits: 1 hr
- MUSC 305 - Keyboard Skills Credits: 2 hrs
* 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

For specific requirements refer to the General Education Program.
Additional Requirements: 10 hours

- FRNH 121 - Beginning French Credits: 5 hrs
- FRNH 122 - Beginning French Credits: 5 hrs
- GERN 121 - Beginning German Credits: 5 hrs
- GERN 122 - Beginning German Credits: 5 hrs

Major Requirements: 86 hours
Applied Music (principal instrument): 32 hours
*see note

- AVOC 140 - Applied Music (4 hrs)
- AVOC 144 - Applied Music (4 hrs)
- AVOC 240 - Applied Music (4 hrs)
- AVOC 244 - Applied Music (4 hrs)
- AVOC 340 - Applied Music (4 hrs)
- AVOC 344 - Applied Music (4 hrs)
- AVOC 440 - Applied Music (4 hrs)
- AVOC 444 - Applied Music (4 hrs)

Supporting Courses: 48 hours

- Upper-level music theory/literature electives (4 hrs)
- Vocal Ensembles (8 hrs)
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 128 - Music Literature II Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs
- MUSC 305 - Keyboard Skills Credits: 2 hrs

Four hours from the following:

- MUSC 317 - Music Composition Credits: 2 hrs
- MUSC 341 - Contrapuntal Techniques Credits: 2 hrs
- MUSC 401 - Music Theory-Literature V Credits: 2 hrs
- MUSC 402 - Music Theory-Literature VI Credits: 2 hrs
- MUSC 404 - Psychology of Music Credits: 3 hrs
- MUSC 413 - Orchestration Credits: 2 hrs
- MUSC 414 - Band Arranging Credits: 2 hrs

Courses Chosen According to Area of Specialization: 10 hours

- Music courses chosen in consultation with major professor (6 hrs)
- MUSC 235 - Diction in Singing Credits: 2 hrs
- MUSC 326 - Conducting Credits: 2 hrs

Minor Requirements: 0 hours
No minor is required.
Program Total: 136 hours

Notes:
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. ${ }^{\text {TM }}$

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
For specific requirements refer to the General Education Program.
Additional Requirements: 10 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

Major Requirements: 59 hours
Music Theory and History Courses: 34 hours

- Ensembles (4 hrs; 2 hrs must be vocal)
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 201 - Music Theory III Credits: 3 hrs
- MUSC 202 - Music Theory IV Credits: 3 hrs
- MUSC 218 - Music Literature III Credits: 1 hr
- MUSC 219 - Aural Skills III Credits: 1 hr
- MUSC 228 - Basic Music Literature Credits: 3 hr
- MUSC 229 - Aural Skills IV Credits: 1 hr
- MUSC 301 - History of Music to 1750 Credits: 4 hrs
- MUSC 302 - History of Music Credits: 3 hrs
- MUSC 326 - Conducting Credits: 2 hrs
- MUSC 413 - Orchestration Credits: 2 hrs

Applied Music: 15 hours

- Applied Music courses at the 100 through the 412 level (principal instrument) ( 14 hrs )

Secondary Instrument Class: 1 hour
Some students may be able to meet this secondary instrument class requirement upon entrance.

- MUSC 241 - Percussion Credits: 1 hr

Skill Requirements: 10 hours
Some students should be able to meet some of these skill requirements upon entrance, or they can be achieved through the courses listed below:

1. Voice

- MUSC 225 - Voice Skills with Special Populations Credits: 1 hr
- MUSC 232 - Voice Class Credits: 1 hr

11. Piano

- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr
- MUSC 253 - Functional Piano Credits: 1 hr
- MUSC 254 - Functional Piano Credits: 1 hr
- MUSC 305 - Keyboard Skills Credits: 2 hrs

111. Guitar

- MUSC 226 - Guitar Skills with Special Populations Credits: 2 hrs

Music Therapy Courses: 28 hours

- MUSC 103 - Introduction to Music Therapy Credits: 3 hrs
- MUSC 109 - Music Therapy Improvistion Ensemble I Credits: 1 hr
- MUSC 209 - Music Therapy Improvisation Ensemble II Credits: 1 hr
- MUSC 236 - Pre-internship Clinical Training in Music Therapy I Credits: 1 hr
- MUSC 237 - Pre-internship Clinical Training in Music Therapy II Credits: 1 hr
- MUSC 238 - Methods and Materials in Music Therapy Credits: 3 hrs
- MUSC 303 - Music Therapy Clinical Approaches Credits: 2 hrs
- MUSC 304 - Music Therapy Professional Skills Credits: 2 hrs
- MUSC 309 - Music Therapy Improvisation Ensemble III Credits: 1 hr
- MUSC 323 - Pre-internship Clinical Training in Music Therapy III Credits: 1 hr
- MUSC 324 - Pre-internship Clinical Training in Music Therapy IV Credits: 1 hr
- MUSC 404 - Psychology of Music Credits: 3 hrs
- MUSC 405 - Music Therapy Research Credits: 3 hrs
- MUSC 409 - Music Therapy Inprovisation Ensemble IV Credits: 1 hr
- MUSC 427 - Pre-Internship Clinical Training in Music Therapy V Credits: 1 hr
- MUSC 428 - Pre-internship Clinical Training in Music Therapy VI Credits: 1 hr
- MUSC 488 - Clinical Training Internship in Music Therapy Credits: 2 hrs

Minor Requirements: 0 hours
No minor is required.
Program Total: 137 hours
Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

## Minor

## 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

- Two levels of Modern Dance Tech nique I-IV (DANC110, DANC11, DANC210 and DANC211) (6 hrs)
- Two levels of Classical Ballet Tech nique I-IV (DANC108, DANC109, DANC208 or DANC209) (6 hrs)
- One level of Jazz I-II (DANC 101 or DANC201) (2 hrs)
- DANC 107 - Rhythmic Analysis and Dance Accompaniment Credits: 3 hrs
- DANC 245 - Elements of Dance Composition Credits: 3 hrs
- DANC 255 - Dance Production Credits: 3 hrs
- DANC 350 - History of Dance Credits: 3 hrs
- DANC 450 - Advanced Dance Composition Credits: 4 hrs
- DANC 455 - Seminar in Dance Credits: 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 Area Courses: 16 hours

- Ensembles (2 hrs)
- MUSC 101 - Music Theory I Credits: 3 hrs
- MUSC 102 - Music Theory II Credits: 3 hrs
- MUSC 118 - Music Literature I Credits: 1 hr
- MUSC 119 - Aural Skills I Credits: 1 hr
- MUSC 128 - Music Literature II Credits: 1 hr
- MUSC 129 - Aural Skills II Credits: 1 hr`
- MUSC 251 - Functional Piano Credits: 1 hr
- MUSC 252 - Functional Piano Credits: 1 hr Applied Music

Electives: 4 hours
Any music courses for which the student meets the prerequisites. Minor Total: 20 hours

# Physics and Astronomy Programs 

## Physics and Astronomy

Department Head: Alexandria Oakes<br>Address: 303 Strong Hall<br>Phone: 734.487.4144<br>E-mail: aoakes@emich.edu<br>Web site: www.physics.emich.edu/index.htm

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, general science, integrated science teaching and physical 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, 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

Physics and Astronomy Programs and Courses

## Major

## 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
For specific requirements refer to the General Education Program .
Major Requirements: 62 hours

Required Math Courses: 18 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 325 - Differential Equations Credits: 3 hrs

Required Physics Courses: 26 hours

- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr
- PHY 420 - Capstone Project Credits: 3 hrs
- PHY 456 - Electronics for Scientists Credits: 4 hrs

Required Engineering Mechanics Courses: 11 hours

- PHY 229 - Strength and Elasticity of Materials Credits: 4 hrs
- PHY 230 - Engineering Dynamics Credits: 4 hrs
- PHY 485 - Fluid Dynamics Credits: 3 hrs

Physics Elective Courses: 7 hours
Seven hours from the following:

- PHY 332 - Mechanics Laboratory Credits: 1 hr
- PHY 350 - Electricity and Magnetism I Credits: 3 hrs
- PHY 431 - Intermediate Mechanics II Credits: 3 hrs
- PHY 436 - Vibration and Sound Credits: 4 hrs
- PHY 442 - Optics and Optics Laboratory Credits: 4 hrs
- PHY 444 - Applied Optics Credits: 2 hrs
- PHY 458 - Electronic Devices for Scientists Credits: 4 hrs
- PHY 471 - Atomic and Nuclear Physics Credits: 3 hrs
- PHY 475 - Introduction to Quantum Mechanics Credits: 3 hrs
- PHY 481 - Mathematical Physics Credits: 3 hrs
- PHY 497 - Independent Study - Physics Credits: 1 hr
- PHY 498 - Independent Study - Physics Credits: 2 hrs
- PHY 499 - Independent Study - Physics Credits: 3 hrs

Additional Requirements: 11 hours

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- COSC 111 - Introduction to Programming Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required
University Elective Courses: 11 hours

Program Total: 124 hours
Notes:

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

## 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
For specific requirements refer to the General Education Program .
Group Major (36-37 hrs) with Cognate Minor (20-22): 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 Major: 36-37 hours
With a biology minor, take the following for a group major:

- Approved elective courses in chemistry, earth science, mathematics and physics (8 hrs) *see note
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a chemisty minor. take the following for a group major:

- Approved elective courses in biology, earth science, mathematics and physics (4 hrs)


## *see note

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a earth science minor, take the following for a group major:

- Approved elective courses in biology, chemistry, mathematics and physics (7 hrs)
*see note
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a mathematics minor, take the following for a group major:

- Approved elective courses in biology, chemistry, earth science and physics (5 hrs) *see note
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a physics, take the following for a group major:

- Approved elective courses in biology, chemistry, earth science and mathematics (5 hrs)
*see note
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs

Minor Requirements: 0 hours
University Elective Courses: 25-28 hours
Program Total: 124 hours
Notes:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

* Approved Elective Courses:

This list is not complete; consult with the general science adviser for other possible courses.

- ASTR 204 - Astronomical Investigations Credits: 1 hr
- BIO 205 - Field Biology Credits: 4 hrs
- BIO 130 - Biology of Plants Credits: 4 hrs
- BIO 140 - Biology of Animals Credits: 4 hrs
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- ESSC 114 - National Parks and Monuments Credits: 2 hrs
- ESSC 228 - Mineralogy Credits: 4 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 320 - Oceanography Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PSCI 270 - Relativity, Atomic and Nuclear Physics Credits: 3 hrs
- PSCI 305 - Energy and Society Credits: 3 hrs
- PSCI 309- Thermal Science and Heat Transfer Credits: 3 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs


## 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. Successful Completion of this course of studies, in context of other program requirements, qualifies the student for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in Physical Science (DP). The Michigan Test for Teacher Certification (MTTC) covering this field is \#97, "Physical Science."

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 54-55 hours
Required Physical Science Courses: 54-55 hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PSCI 270 - Relativity, Atomic and Nuclear Physics Credits: 3 hrs
- PSCI 305 - Energy and Society Credits: 3 hrs
- PSCI 309 - Thermal Science and Heat Transfer Credits: 3 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs

Choose one of the following:

- CHEM 406 - The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr One from the following:
- ASTR 315 - Observational Astronomy Credits: 3 hrs
- ESSC 111- The Earth System Through Time Credits: 4 hrs Additional Requirements: 8-9 hours

Life Science Course: 4 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs Mathematics Course(s): 4-5 hours

One of the following options: Option 1

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option 2

- MATH 120 - Calculus I Credits: 4 hrs

Professional Studies: 39 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require fomal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Choose one course from the following:

- CHEM 325 - Methodology for Secondary Chemistry Teachers Credits: 3 hrs
- PHY 325 - Methods of Teaching the Physical Sciences Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 0 hours
No minor is required:
Program Total: 141-143 hours
Note:

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

## 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. Successful completion of this course of studies, in context of other program requirements, qualifies the studnt for recommendation for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in Physical Science (DP). The Michigan Test for Teacher Certification (MTTC) covering this field is \#97, "Physical Science."

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 44-52 hours
Option 1: With a Physics teaching minor (PHYT-21 hrs), complete the following courses:
Required Physical Science Courses: $36-37$ hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs

Choose one from the following:

- CHEM 406 - The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr

Choose one from the following:

- ASTR 315- Observational Astronomy Credits: 3 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs

Additional Requirements: 8-9 hours
Life Science Course: 4 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs Mathematics Course(s): 4-5 hours

One of the following options:
Option 1:

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option 2:

- MATH 120 - Calculus I Credits: 4 hrs

Option 2: With a Chemisty teaching minor (CHMT-24 hrs), complete the following courses:
Required Physical Science Courses: 37 hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- ASTR 315-Observational Astronomy Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PSCI 270 - Relativity, Atomic and Nuclear Physics Credits: 3 hrs
- PSCI 305 - Energy and Society Credits: 3 hrs
- PSCI 309 - Thermal Science and Heat Transfer Credits: 3 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs Choose one of the following:
- CHEM 406 - The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr Additional Requirements: 8-9 hours

Life Sciences Course: 4 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs

Mathematics course(s): 4-5 hours
One of the following options:
Option 1:

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option 2:

- MATH 120 - Calculus I Credits: 4 hrs

Option 3: With a Biology teaching minor (BIOT-24 hrs), complete the following courses:
Required Physical Science Courses: 39 hours

- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PSCI 270 - Relativity, Atomic and Nuclear Physics Credits: 3 hrs
- PSCI 305 - Energy and Society Credits: 3 hrs
- PSCI 309- Thermal Science and Heat Transfer Credits: 3 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs Choose one of the following:
- CHEM 406-The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr Additional Requirements: 8-9 hours

Life Science Course: 5 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs

Mathematics Course(s): 4-5 hours
One of the following options:
Option 1:

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option 2:

- MATH 120 - Calculus I Credits: 4 hrs

Option 4: With an Earth Science teaching minor (ESCT-21 hrs), complete the following courses:
Required Physical Science Courses: 43 hours

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PSCI 270 - Relativity, Atomic and Nuclear Physics Credits: 3 hrs
- PSCI 305 - Energy and Society Credits: 3 hrs
- PSCI 309-Thermal Science and Heat Transfer Credits: 3 hrs
- PSCI 340 - Milestones in Physics and Astronomy for Teachers Credits: 3 hrs

Choose one of the following:

- CHEM 406 - The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr

Additional Requirements: 8-9 hours
Life Science Course: 4 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs

Mathematics Course(s): 4-5 hours

One of the following options:
Option 1:

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option 2:

- MATH 120-Calculus I Credits: 4 hrs

Professional Studies: 39 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require fomal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Choose one course from the following:

- CHEM 325 - Methodology for Secondary Chemistry Teachers Credits: 3 hrs
- PHY 325 - Methods of Teaching the Physical Sciences Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 20 hours
Must choose either a physics, chemistry, earth science or biology minor.
Program Total: 143-151 hours
Note:
Each student must choose writing intensive courses as part of major completion requirements. Consult your adviser for course options.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Required Courses: 29 hours

- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 332 - Mechanics Laboratory Credits: 1 hr
- PHY 350 - Electricity and Magnetism I Credits: 3 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr
- PHY 420 - Capstone Project Credits: 3 hrs

Restricted Elective Courses: 2-4 hours
One Laboratory course from the following:

- PHY 436 - Vibration and Sound Credits: 4 hrs
- PHY 442 - Optics and Optics Laboratory Credits: 4 hrs
- PHY 444 - Applied Optics Credits: 2 hrs
- PHY 456 - Electronics for Scientists Credits: 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

- COSC 111 - Introduction to Programming Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs

Minor Requirements: 20 hours
A Mathematics minor is highly recomended.
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 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.
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 35 hours
Required Courses: 31 hours

- ASTR 204 - Astronomical Investigations Credits: 1 hr
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 332 - Mechanics Laboratory Credits: 1 hr
- PHY 350 - Electricity and Magnetism I Credits: 3 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr

Restricted Elective Courses: 2-4 hours
One of the following laboratory courses:

- PHY 436 - Vibration and Sound Credits: 4 hrs
- PHY 442 - Optics and Optics Laboratory Credits: 4 hrs
- PHY 444 - Applied Optics Credits: 2 hrs
- PHY 456 - Electronics for Scientists Credits: 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 us ed on this major.
Professional Studies: 39 hours
Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- PHY 325-Methods of Teaching the Physical Sciences Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Additional Requirements: 19 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs

One of the following:

- CHEM 115 - Chemistry and Society Credits: 3 hrs
and
- CHEM 116 - Chemistry and Society Laboratory Credits: 1 hr
- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs
and
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
and
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr One of the following:
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- BIO 130 - Biology of Plants Credits: 4 hrs
- BIO 140 - Biology of Animals Credits: 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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 57 hours
Required Mathmatics Courses: 18 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs
- MATH 325 - Differential Equations Credits: 3 hrs Required Phyics Courses: 32 hours
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 332 - Mechanics Laboratory Credits: 1 hr
- PHY 350 - Electricity and Magnetism I Credits: 3 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr
- PHY 420 - Capstone Project Credits: 3 hrs
- PHY 475 - Introduction to Quantum Mechanics Credits: 3 hrs

Restricted Elective Courses: 2-4 hours
One of the following laboratory courses:

- PHY 436 - Vibration and Sound Credits: 4 hrs
- PHY 442 - Optics and Optics Laboratory Credits: 4 hrs
- PHY 444 - Applied Optics Credits: 2 hrs
- PHY 456 - Electronics for Scientists Credits: 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

- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- COSC 111 - Introduction to Programming Credits: 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.

## Secondary Integrated Science Comprehensive Group MajorSecondary Teacher Certification

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 integrated science, certification code DI. The Michigan Test for Teacher Certification (MTTC) covering this field is \#94, "Science."

General Education Requirements: 40 hours
Comprehensive Major Requirements: 56-57 hours
Life Sciences Courses: 14 hours

- BIO 110 - Introductory Biology I Credits: 5 hrs
- BIO 120 - Introductory Biology II Credits: 5 hrs

Physical Sciences Courses: 20 hours

- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

Earth/Space Sciences Courses: 18 hours

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- ASTR 315-Observational Astronomy Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs

Additional Required Courses: 4-5 hours
Choose one option from the following:
Option I:

- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Option II:

- MATH 120 - Calculus I Credits: 4 hrs

One course from the following:

- BIO 406 - The Nature of Science Credits: 1 hr
- CHEM 406 - The Nature of Science Credits: 1 hr
- ESSC 406 - The Nature of Science Credits: 1 hr
- PHY 406 - Ethical Issues in Physics Credits: 1 hr Professional Studies: 39 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs Phase II: Content Methods, Literacy and Technology: 9 hours
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs One course from the following:
- BIOT 403 - Methods for Teaching Secondary Biology Credits: 3 hrs
- CHEM 325 - Methodology for Secondary Chemistry Teachers Credits: 3 hrs
- ESSC 347 - Methods for Teaching Secondary Earth Science Credits: 3 hrs
- PHY 325 - Methods of Teaching the Physical Sciences Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 0 hours
Program Total: 135-136 hours
Note:

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

## Minor

## 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

- ASTR 204 - Astronomical Investigations Credits: 1 hr
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- ASTR 315-Observational Astronomy Credits: 3 hrs
- ASTR 370-Astrophysical Concepts Credits: 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:

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

One course from the following:

- Others as approved by general science adviser
- CHEM 123 - General Chemistry II Credits: 3 hrs
and
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs With a major in chemisty, take the following courses:
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs One course from the following:
- Others as approved by general science adviser
- BIO 226 - Global Ecology and the Environment Credits: 4 hrs
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs With a major in earth science, take the following:
- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- MATH 120 - Calculus I Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs One course from the following:
- Others as approved by general science adviser
- BIO 226 - Global Ecology and the Environment Credits: 4 hrs
- CHEM 123 - General Chemistry II Credits: 3 hrs
and
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a major in geology, take the following courses:

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- MATH 120 - Calculus I Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

One course from the following:

- Others as approved by general science adviser
- BIO 226 - Global Ecology and the Environment Credits: 4 hrs
- CHEM 123 - General Chemistry II Credits: 3 hrs
and
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a major in mathematics, take the following courses:

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

One course from the following:

- Others as approved by general science adviser
- CHEM 123 - General Chemistry II Credits: 3 hrs
and
- CHEM 124 - General Chemistry II Laboratory Credits: 1 hr
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

With a major in physics, take the following courses:

- ASTR 205 - Principles of Astronomy Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- MATH 120 - Calculus I Credits: 4 hrs

One course from the following:

- Others as approved by general science adviser
- CHEM 123 - General Chemistry II Credits: 3 hrs
and
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- COSC 145 - Introduction to FORTRAN Programming Credits: 3 hrs
- ESSC 212 - Weather, Climate and the Earth System Credits: 3 hrs

Minor Total: 24-26 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

- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr

Additional Requirements: 15 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 4 hrs

Minor Total: 36 hours

## Physics Minor-Secondary, K-12 and Special EducationSecondary 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

- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- PHY 330 - Intermediate Mechanics I Credits: 3 hrs
- PHY 360 - Heat and Thermodynamics Credits: 4 hrs
- PHY 370 - Introduction to Modern Physics Credits: 3 hrs
- PHY 372 - Modern Physics Laboratory Credits: 1 hr

Additional Requirements: 15 hours

- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 223 - Multivariable Calculus Credits: 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:

- PHY 325 - Methods of Teaching the Physical Sciences Credits: 3 hrs
- PHY 406 - Ethical Issues in Physics Credits: 1 hr Minor Total for Non-Science Majors: 40 hours

Note:
*CHEM 406, ESSC 406, or BIOL 406 may be substituted for PHY 406.

## Political Science Programs

## Political Science

Address: 601 Pray-Harrold
Phone: 734.487.3113
E-mail: political.science@emich.edu
Web site: www.emich.edu/polisci

## 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), Nonprofit Administration (for those interested in working in the nonprofit sector) and International Affairs (for those interested in working in international organizations or graduate school). In addition, the Department is the University-wide contact point for Pre Law Advising. The department also offers a $3 / 2$ Undergraduate/Master in Public Administration degree allowing students to complete a combined bachelor and master degree in public administration in five years instead of the regular six years.

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 encouraged 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: public management, public personnel management, public budgeting management, public land planning and development management, local government management, public policy analysis 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.

## Major

# Combined Bachelor's Degree in Political Science 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.


#### Abstract

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. General Education Requirements: 40 hours


For specific requirements refer to the General Education Program .

Additional Requirements: 3 hours

- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113 - American Government Honors Credits: 3 hrs

Undergraduate Requirements: 30 hours
Required Core Courses: 9 hours

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs Restricted Electives: 6 hours


## Two courses from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs

Distribution Requirements: 9 hours
Three courses from the groups listed below, including at least one course from each group:

1. Comparative Politics and International Relations

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

11. Political Theory and Methods:

- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 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 hours

For specific requirements refer to the General Education Program .
Additional Requirements: 6 hours

- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113 - American Government Honors Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
or
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs Undergraduate Requirements: 30 hours

Required Core Courses: 9 hours

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs Restricted Electives: 15 hours

Five courses from the following:

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 385-Judicial Process and Behavior Credits: 3 hrs
- PLSC 431 - Theories of Public Organization Credits: 3 hrs

Graduate Courses Toward Undergraduate Major: 6 hours
Minor Requirements: 20 hours
University Elective Courses: 20 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.

## International Affairs Major

This curriculum provides students with an opportunity to develop an understanding of both area and global issues. It is intended to prepare students for participation in a global society, including work with government, business and nongovernment organizations. It is intended for students who are interested in diplomacy, international affairs and international service.

There are two tracks within this curriculum: Cognate Option A does not have a foreign language requirement and is directed to students who either already possess an adequate level of foreign language proficiency or who anticipate employment in which such proficiency is not expected. This curriculum requires 54 hours. Cognate Option B includes a foreign language requirement and is strongly recommended for individuals who are seeking work outside the United States or work in which some familiarity with foreign language may be an asset such as the foreign service. This curriculum requires 61-64 credit hours.

Required Courses: 12 hours

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs


## Three courses from the following:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs

International Politics Courses: 6 hours
Two courses from the following:

- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

Cognate Option A: 24 hours
Students will select courses from at least two disciplines from an approved list of courses in history, economics, anthropology, geography and foreign language. If a foreign language is selected, students will consult with a FLABS advisor to select an appropriate sequence of classes.

Cognate Option B: 19-23 hours
Students will take an appropriate sequence of courses in a foreign language - French, German, Spanish, Japanese, Chinese, Arabic or Russian - and will select four courses from two disciplines from an approved list of courses in history, economics, anthropology and geography.

Capstone: 3 hours
Students may select one of the following options:

- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs
- PLSC 499 - Independent Study Credits: 3 hrs
can be taken either as an undergraduate thesis course or study abroad.
Cognate Courses
International Economics Perspective
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

International Geography Perspective

- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 111 - Regions and Resources Credits: 3 hrs
- GEOG 235 - Economic Geography Credits: 3 hrs
- GEOG 314-Geography of Russia and Neighboring States Credits: 3 hrs
- GEOG 316 - History and Geography of Modern Europe Credits: 3 hrs
- GEOG 317 - History and Geography of Spanish America Credits: 3 hrs
- GEOG 318-Geography of Asia Credits: 3 hrs
- GEOG 319 - Geography of Europe Credits: 3 hrs
- GEOG 321 - Geography of Latin America Credits: 3 hrs
- GEOG 322 - Geography of Africa Credits: 3 hrs

International Historical Perspective

- HIST 103-20th-Century Civilization Credits: 3 hrs
- HIST 106 - Asian and African Civilizations Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs

After one 100-level class, students may select from the following:

- HIST 316 - History and Geography of Modern Europe Credits: 3 hrs
- HIST 317 - History and Geography of Spanish America Credits: 3 hrs
- HIST 326 - History and Geography of Modern Asia Credits: 3 hrs
- HIST 333 - Europe since 1919 Credits: 3 hrs
- HIST 339 - Arab-Israeli Conflict Credits: 3 hrs
- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 344 - Russia since 1855 Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 350 - History of Canada Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 375 - Modern India Credits: 3 hrs
- HIST 426 - The United States from 1963 to the Present Credits: 3 hrs
- HIST 442 - Modern China Credits: 3 hrs
- HIST 443 - Modern Japan Credits: 3 hrs
- HIST 456 - Europe since 1945 Credits: 3 hrs
- HIST 461 - Foreign Relations of the United States Credits: 3 hrs International Social/Cutural Perspective
- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 233-Cultures of Mesoamerica and the Caribbean Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- ANTH 248 - Peoples and Cultures of the Pacific Credits: 3 hrs
- ANTH 336 - Social and Cultural Change Credits: 3 hrs


## Political Science Major

To fulfill the requirements for a major in political science, students must complete at least 30 hours in the major as specifi ed 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

For specific requirements refer to the General Education Program.
Major Requirements: 30 hours
Required Core Courses: 9 hours

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs

Two courses from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs

Area of Concentration: 21 hours

Seven courses from the three groups listed below, including at least one course from each group.

1. American Politics, Public Law and Administration

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314 - Civil Mock Trial and Legal Process Credits: 3 hrs
or
- PLSC 315 - Criminal Mock Trial and Legal Process Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs

11. Comparative Politics and International Relations:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

111. Political Theory and Methods:

- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 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.

## 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). 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
For specific requirements refer to the General Education Program.

Additional Requirements: 12 hours

- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113-American Government Honors Credits: 3 hrs One course from the following:
- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs

Major Requirements: 30 hours
Required Core Courses: 15 hours

- ECON 375 - Economic History of the United States Credits: 3 hrs
- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs

Two course from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs

Area of Concentration: 15 hours

Five courses from the three groups listed below, including at least one course from each group:

1. American Politics, Public Law and Administration

- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314 - Civil Mock Trial and Legal Process Credits: 3 hrs
or
- PLSC 315 - Criminal Mock Trial and Legal Process Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 385-Judicial Process and Behavior Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs

11. Comparative Politics and International Relations:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

111. Political Theory and Methods:

- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306-Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

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

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- HIST 481 - The Teaching of Social Studies Credits: 3 hrs
- RDNG 311-Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.

## 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
For specific requirements refer to the General Education Program.

Additional Requirements: 6 hours

- MATH 170 - Elementary Statistics Credits: 3 hrs
or
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
or
- PLSC 113-American Government Honors Credits: 3 hrs Major Requirements: 36 hours

Required Courses: 21 hours

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 431 - Theories of Public Organization Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs

Elective Courses: 15 hours
Five courses from the following:

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 470 - Seminar in Political Science Credits: 3 hrs
- PLSC 486 - Internship in Political Science/Public Administration Credits: 3 hrs

Minor Requirements: 20 hours
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.
*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 PLSC 112/113 American Government as a General Education course prior to the required core courses and to complete PLSC 112/113 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 33 credit hours required for the major.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Additional Requirements: 3 hours

- PLSC 112 - American Government Credits: 3 hrs Major Requirements: 30 hours
- PLSC 385-Judicial Process and Behavior Credits: 3 hrs One course from each of the following three areas of public law:

Area 1:

- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs

Area ll:

- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs Area lll:
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs Publc Law Restricted Elective Courses: 9 hours

Students may not double count courses taken in the Required Area Course Requirements. Select three courses from the following:

- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
or
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314 - Civil Mock Trial and Legal Process Credits: 3 hrs
or
- PLSC 315 - Criminal Mock Trial and Legal Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- HIST 465 - United States Constitutional History Credits: 3 hrs
- ECON 407 - Economic Analysis and Law Credits: 3 hrs
- CRM 460 - Criminal Law II Credits: 3 hrs
- PLSC 486 - Internship in Political Science/Public Administration Credits: 3 hrs
- PLSC 487 - Cooperative Education in Political Science Credits: 3 hrs
- PLSC 488 - Internship in Political Science/Public Administration Credits: 6 hrs
- PLSC 489 - Internship in Political Science/Public Administration Credits: 9 hrs
- PLSC 497 - Independent Study Credits: 1 hrs
- PLSC 498 - Independent Study Credits: 2 hrs
- PLSC 499 - Independent Study Credits: 3 hrs

Elective Courses: 12 hours

Four courses from the following groups with at least one in each group:
I. American Politics and Administration

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs

II: Comparative Politics and International Relations

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

III: Political Theory and Methods

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21 st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 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.

## 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 inservice 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
For specific requirements refer to the General Education Program.
Major Requirements: 63-64 hours
Foundation Group: 12 hours

One course from the following:

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs

One course from the following:

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs

One course from the following:

- CRM 300 - Criminal Justice Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs

One course from the following:

- CTAC 352 - Communication in Negotiation Credits: 3 hrs
- CTAC 354-Organizational Communication Credits: 3 hrs Administration Group: 12 hours
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs One course from the following:
- HSEM 412 - Administration of Public Safety Agencies Credits: 3 hrs
- PLSC 431 - Theories of Public Organization Credits: 3 hrs

Public Safety Administration Group: 18 hours

- HSEM 380 - Planning and Decision-Making for Public Safety Credits: 3 hrs
- HSEM 381 - Public Relations and Public Safety Credits: 3 hrs
- HSEM 438 - Human Resource Management for Public Safety Agencies Credits: 3 hrs
- HSEM 439 - Managing Critical Incidents for Homeland Security Credits: 3 hrs One course from the following:
- HSEM 453 - Management/Leadership for Public Safety Credits: 3 hrs
- PLSC 450 - Managing Public Safety Agencies Credits: 3 hrs

One course from the following:

- HSEM 454 - Managing Technology for Public Safety Agencies Credits: 3 hrs
- PLSC 451 - Seminar in Public Safety Administration Credits: 3 hrs

Area of Concentration: 15-16 hours
Five courses from the following:

- CRM 431 - Policing in Society Credits: 3 hrs
- ESSC 324 - Weather Credits: 3 hrs
- ESSC 325 - Geomorphology Credits: 4 hrs
- HSEM 255 - Emergency Preparedness Planning Credits: 3 hrs
- HSEM 306 - Issues in Emergency Preparedness Credits: 3 hrs
- HSEM 309 - Natural Hazard Mitigation Credits: 3 hrs
- HSEM 433 - Arson Investigation Credits: 3 hrs
- HSEM 434 - Hazardous Materials Credits: 3 hrs
- HSEM 435 - Incident Command Credits: 3 hrs
- HSEM 452 - Current Trends in Emergency Management Credits: 3 hrs
- HSEM 475 - Managing Correctional Agencies and Facilities Credits: 3 hrs Academy or Internship/Co-op Experience: 6 hours

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.

- PLSC 488 - Internship in Political Science/Public Administration Credits: 6 hrs Minor Requirements: 0 hours

No minor is required.
University Elective Courses: 20-21 hours
Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
Program Total: 124 hours

## Minor

## 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

- ACC 246 - Accounting for Public Administrators Credits: 3 hrs
- PLSC 336 - Foundations of the U.S. Nonprofit Sector Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs General Nonprofit Management: 3 hours

Choose one:

- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- PLSC 435 - Nonprofit Management and Leadership Credits: 3 hrs
- SOCL 462 - Complex Organizations Credits: 3 hrs

Human Resource Development and Supervision: 3 hours
Choose one:

- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs
- MGMT 384 - Human Resource Management Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 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.

- AAS 231 - Urbanization and the African American Community Credits: 3 hrs
- AAS 351-The Social Context of African American Health Credits: 3 hrs
- CTAC 370 - Nonprofit Organizational Communication Credits: 3 hrs
- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- JRNL 314 - Writing for Public Relations Credits: 3 hrs
- JRNL 408 - Case Studies in Public Relations Credits: 3 hrs
- LAW 393 - Law of Business Enterprises Credits: 3 hrs
- LAW 403 - Employment Law Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- PLSC 434 - Nonprofit Board Development Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs
- PSY 321 - Child Psychology Credits: 3 hrs
- PSY 322 - Psychology of Adolescence Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 303 - Sociology of Childhood and Youth Credits: 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.

Required Core Courses: 6 hours

Two courses from the following:

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs

Area of Concentration: 15 hours

Five courses from two of the three following groups:

1. American Politics, Public Law and Administration:

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314 - Civil Mock Trial and Legal Process Credits: 3 hrs
or
- PLSC 315 - Criminal Mock Trial and Legal Process Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs

11. Comparative Politics and International Relations:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs

111. Political Theory and Methods:

- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 3 hrs

Minor Total: 21 hours

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

## Political Science Teaching Minor - Secondary and K-12 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 PLSC 112/113 as one of their general education courses, prior to the required core courses and to complete PLSC 112/113 and the required core courses within the first nine hours of political science course work.

Required Courses: 9 hours

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs One course from the following:
- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs Restricted Elective Courses: 15 hours

Five courses from two of the three areas of concentration:
Area 1. American Politics, Public Law and Administration

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313-Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314-Civil Mock Trial and Legal Process Credits: 3 hrs
or
- PLSC 315 - Criminal Mock Trial and Legal Process Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs

Area 11. Comparative Politics and International Relations:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 343 - Model United Nations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

Area lll. Political Theory and Methods:

- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 3 hrs

Minor Total: 24 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
*Students majoring in Social Studies will continue to be expected to take PLSC305, one of the two courses in Area I.

## 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 Requirements: 3 hours

- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113 - American Government Honors Credits: 3 hrs

Required Course: 3 hours

- PLSC 270 - Public Administration Credits: 3 hrs Restricted Elective Courses: 12 hours

Four of the following courses:

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 431 - Theories of Public Organization Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs Elective Courses: 9 hours

Three courses from the following:

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 470 - Seminar in Political Science Credits: 3 hrs
- PLSC 486 - Internship in Political Science/Public Administration Credits: 3 hrs Minor Total: 24 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/cooperative 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 Requirements: 3 hours

- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113-American Government Honors Credits: 3 hrs

Core Required Courses: 9 hours

One course from each of the following three areas of public law:
Area 1:

- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs

Area ll:

- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs

Area lll:

- PLSC 341 - International Law Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs

Public Law Restricted Elective Courses: 6 hours

Students may not double count courses taken in the Core Required Courses section. Select two courses from the following:

- CRM 460 - Criminal Law II Credits: 3 hrs
- ECON 407 - Economic Analysis and Law Credits: 3 hrs
- HIST 465 - United States Constitutional History Credits: 3 hrs
- PLSC 215 - Civil Rights and Liberties in a Diverse US Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 314 - Civil Mock Trial and Legal Process Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 386 - U.S. Supreme Court Simulation Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- PLSC 480 - Field Seminar in Political Science/Public Administration Credits: 3 hrs
- PLSC 486 - Internship in Political Science/Public Administration Credits: 3 hrs
- PLSC 487 - Cooperative Education in Political Science Credits: 3 hrs
- PLSC 488 - Internship in Political Science/Public Administration Credits: 6 hrs
- PLSC 489 - Internship in Political Science/Public Administration Credits: 9 hrs
- PLSC 497 - Independent Study Credits: 1 hrs
- PLSC 498 - Independent Study Credits: 2 hrs
- PLSC 499 - Independent Study Credits: 3 hrs

Elective Courses: 6 hours
Select two courses from two of the three following groups:

1. American Politics, Public Law and Administration

- PLSC 202 - State and Local Government Credits: 3 hrs
- PLSC 216 - Municipal Government Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 330 - Urban Politics Credits: 3 hrs
- PLSC 332 - Intergovernmental Relations and Federalism Credits: 3 hrs
- PLSC 335 - Labor in American Politics Credits: 3 hrs
- PLSC 352 - Politics of Government Budgeting Credits: 3 hrs
- PLSC 357 - Campaigns and Elections Credits: 3 hrs
- PLSC 358 - Political Parties and Interest Groups Credits: 3 hrs
- PLSC 359 - Public Opinion and Political Learning Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PLSC 380 - American Presidency Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs

11. Comparitive Politics and International Relations:

- PLSC 120 - Global Issues Credits: 3 hrs
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 221 - America at War: From Vietnam to Iraq Credits: 3 hrs
- PLSC 222 - War and Peace in the Nuclear Age Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 311 - Politics of the Developing World Credits: 3 hrs
- PLSC 327 - American Foreign Policy Process Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 361 - Russian Politics in Transition Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 371 - Government and Politics of the Middle East Credits: 3 hrs
- PLSC 372 - Government and Politics of Sub-Saharan Africa Credits: 3 hrs
- PLSC 374 - Asian Political Systems Credits: 3 hrs
- PLSC 390 - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 391 - Field Study: Global Experience - Poverty, Human Rights and Health Credits: 3 hrs
- PLSC 462 - Russian Foreign Relations Credits: 3 hrs
- PLSC 467 - Advanced International Relations Credits: 3 hrs

111. Political Theory and Methods:

- PLSC 210 - Introduction to Political Analysis Credits: 3 hrs
- PLSC 213 - Introduction to Political Thought Credits: 3 hrs
- PLSC 310 - Methods of Political Research Credits: 3 hrs
- PLSC 382 - Politics and the 21 st Century Credits: 3 hrs
- PLSC 317 - Political Science in Literature and Film Credits: 3 hrs
- PLSC 306 - Contemporary Political Thought Credits: 3 hrs
- PLSC 307 - Democracy and Power Credits: 3 hrs
- PLSC 422 - American Political Theory Credits: 3 hrs

Minor Total: 21 hours
Note:

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

## Psychology Programs

## Psychology

Address: 537 Mark Jefferson
Phone: 734.487.1155 734.487.0047
E-mail: cfreedman@emich.edu
Web site: www.emich.edu/psychology

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 Programs and Courses

## Major

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 30 hours
Required Courses: 13-14 hours

- PSY 101 - General Psychology Lecture Credits: 3 hrs or
- PSY 103 - General Psychology Laboratory Credits: 1 hr
- PSY 205 - Quantitative Methods in Psychology Credits: 3 hrs
- PSY 301 - Introductory Experimental Psychology Credits: 4 hrs
- PSY 453 - History and Systems of Psychology Credits: 3 hrs

Restricted Elective Courses: 12 hours

Select one course from each of the following:

1. Adjustment and personality:

- PSY 360 - Abnormal Psychology Credits: 3 hrs
- PSY 451 - Dynamics of Personality Credits: 3 hrs

11. Biological

- PSY 357 - Sensation and Perception Credits: 3 hrs
- PSY 457 - Physiological Psychology Credits: 3 hrs
- PSY 458 - Comparative Animal Behavior Credits: 3 hrs

1ll. Learning and motivation:

- PSY 304 - Learning Credits: 3 hrs
- PSY 356 - Motivation and Emotion Credits: 3 hrs
IV. Development and social:
- PSY 309- Social Psychology Credits: 3 hrs
- PSY 321 - Child Psychology Credits: 3 hrs

Psychology Elective Courses: 4-5 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.

## Minor

## 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

- PSY 101-General Psychology Lecture Credits: 3 hrs
or
- PSY 103-General Psychology Laboratory Credits: 1 hr Elective Courses: 16-17 hours

Sixteen to seventeen hours selected in consultation with an advising coordinator. Minor Requirements: 20 hours

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

## Psychology Minor - Secondary and K-12 Teacher Certification

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

- PSY 101-General Psychology Lecture Credits: 3 hrs or
- PSY 103 - General Psychology Laboratory Credits: 1 hr Elective Courses: 16-17 hours

Sixteen to seventeen hours selected in consultation with an advising coordinator. Minor Total: 20 hours

Note:

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

## Sociology, Anthropology and Criminology Programs

## Sociology, Anthropology and Criminology

Address: 712-A Pray Harrold
Phone: 734.487.0012
Web site: www.sac.emich.edu
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, bilingualbicultural 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

Sociology, Anthropology and Criminology Programs and Courses

## Major

## 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

For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Required Courses: 12 hours

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 140 - Introduction to Physical Anthropology Credits: 3 hrs
- ANTH 150 - Introductory Archaeology Credits: 3 hrs
- ANTH 210 - History of Anthropological Theory Credits: 3 hrs

Restricted Elective Courses: 12 hours
One Culture Area Course:
Three hours selected from this list.

- ANTH 233 - Cultures of Mesoamerica and the Caribbean Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- ANTH 237 - Native North American Cultures Credits: 3 hrs
- ANTH 248 - Peoples and Cultures of the Pacific Credits: 3 hrs
- ANTH 385-Culture of Japan Credits: 3 hrs

One Methodology Course:
Three hours selected from this list.

- ANTH 200 - Writing for Anthropology Credits: 3 hrs
- ANTH 345 - Qualitative Methods Credits: 3 hrs

Two Culminating Courses:
Six hours selected from this list.

- ANTH 437 - Kinship and Social Structure Credits: 3 hrs
- ANTH 439 - Seminar in Anthropological Theory Credits: 3 hrs
- ANTH 479 - Special Topics Credits: 3 hrs

Elective Courses: 6 hours
Two anthropology courses, of which at least one 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.

## 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. Th is 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 thechosen 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 CRM 301 Criminology, a multidisciplinary perspective on the nature, extent and causes of crime. CRM 300 Criminal Justice and CRM 301 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.
General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .
Additional Requirements: 3 hours

One course from the following:

- PHIL 120 - Introduction to Critical Reasoning Credits: 3 hrs
- PHIL 130 - Introduction to Logic Credits: 3 hrs

Major Requirements: 69-70 hours
Core Requirements: 12-13 hours

- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113 - American Government Honors Credits: 3 hrs
- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103 - General Psychology Laboratory Credits: 1 hr
- SOCL 105 - Introductory Sociology Credits: 3 hrs
- SOCL 202 - Social Problems Credits: 3 hrs

Criminology and Criminal Justice Courses: 24 hours

- CRM 300-Criminal Justice Credits: 3 hrs
- CRM 301 - Criminology Credits: 3 hrs
- CRM 331 - Introduction to Corrections Credits: 3 hrs
- CRM 354 - Juvenile Delinquency Credits: 3 hrs
- CRM 370 - White Collar Crime Credits: 3 hrs
- CRM 431 - Policing in Society Credits: 3 hrs
- CRM 447 - Senior Seminar in Criminology Credits: 3 hrs

One course from the following:

- CRM 333 - Violence and Society Credits: 3 hrs
- CRM 337 - Deviance and Society Credits: 3 hrs
- SOCL 333 - Violence and Society Credits: 3 hrs
- SOCL 337 - Deviance and Society Credits: 3 hrs

Research Methods: 6 hours
*see note

- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs
- SOCL 304 - Methods in Sociological Research Credits: 3 hrs

Sociology/Anthropology Courses: 12 hours

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 308 - Social Psychology Credits: 3 hrs
- SOCL 462 - Complex Organizations Credits: 3 hrs

Concentration Requirements: 15 hours

Select one from the following four concentrations:

1. Legal Studies (CRM LGST)

- CRM 412 - Law and Society Credits: 3 hrs
- CRM 460 - Criminal Law II Credits: 3 hrs

Nine hours from the following:

- AAS 441 - Law in the African American Experience Credits: 3 hrs
- CRM 277 - Special Topics Credits: 1 hr
- CRM 278 - Special Topics Credits: 2 hrs
- CRM 279 - Special Topics Credits: 3 hrs
- CRM 321 - Cooperation and Conflict in Society Credits: 3 hrs
- CRM 377 - Special Topics Credits: 1 hr
- CRM 378 - Special Topics Credits: 2 hrs
- CRM 379 - Special Topics Credits: 3 hrs
- CRM 488 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CRM 489 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- LAW 295 - Legal Research Credits: 3 hrs
- PHIL 120 - Introduction to Critical Reasoning Credits: 3 hrs
- PHIL 130 - Introduction to Logic Credits: 3 hrs
- PHIL 355 - Philosophy of Law Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 364 - Legislative Process Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs

11. Law Enforcement (CRM LAWE):
one course from the following

- CRM 277 - Special Topics Credits: 1 hr
- CRM 278 - Special Topics Credits: 2 hrs
- CRM 279 - Special Topics Credits: 3 hrs
- CRM 377-Special Topics Credits: 1 hr
- CRM 378 - Special Topics Credits: 2 hrs
- CRM 379 - Special Topics Credits: 3 hrs
- HLED 490 - Drug Use and Abuse Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 308 - Political Violence and Revolution Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SOCL 306 - The Urban Community Credits: 3 hrs
- SOCL 448 - Collective Behavior Credits: 3 hrs
- SWRK 120 - Introduction to Social Work Services and Professional Roles Credits: 3 hrs
- SWRK 431 - Substance Abuse Credits: 3 hrs

One course from the following:

- CRM 432 - Police Organization Credits: 3 hrs
- PLSC 450 - Managing Public Safety Agencies Credits: 3 hrs

Nine hours from the following:

- CRM 320 - Criminal Investigation Credits: 3 hrs
- CRM 321 - Cooperation and Conflict in Society Credits: 3 hrs
- CRM 460 - Criminal Law II Credits: 3 hrs
- CRM 488 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CRM 489 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each 111. Corrections (CRM CORR)
- CRM 321-Cooperation and Conflict in Society Credits: 3 hrs
- CRM 332 - Community Corrections Credits: 3 hrs

Nine hours from the following:

- COUN 450 - An Introduction: Counseling Concepts and Skills Credits: 3 hrs
- CRM 277 - Special Topics Credits: 1 hr
- CRM 278 - Special Topics Credits: 2 hrs
- CRM 279 - Special Topics Credits: 3 hrs
- CRM 377 - Special Topics Credits: 1 hr
- CRM 378 - Special Topics Credits: 2 hrs
- CRM 379 - Special Topics Credits: 3 hrs
- CRM 488 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CRM 489 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- HLED 490 - Drug Use and Abuse Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- PSY 360-Abnormal Psychology Credits: 3 hrs
- PSY 365 - Behavior Modification Credits: 3 hrs
- SOCL 402 - Group Dynamics Credits: 3 hrs
- SWRK 120 - Introduction to Social Work Services and Professional Roles Credits: 3 hrs
- SWRK 431 - Substance Abuse Credits: 3 hrs
IV. Criminal Justice Administration (CRM ADM)
- CRM 332-Community Corrections Credits: 3 hrs

One course from the following:

- CRM 432 - Police Organization Credits: 3 hrs
- PLSC 450 - Managing Public Safety Agencies Credits: 3 hrs

Nine hours from the following:

- ANTH 345 - Qualitative Methods Credits: 3 hrs
- CRM 277 - Special Topics Credits: 1 hr
- CRM 278 - Special Topics Credits: 2 hrs
- CRM 279 - Special Topics Credits: 3 hrs
- CRM 320-Criminal Investigation Credits: 3 hrs
- CRM 321 - Cooperation and Conflict in Society Credits: 3 hrs
- CRM 377-Special Topics Credits: 1 hr
- CRM 378 - Special Topics Credits: 2 hrs
- CRM 379 - Special Topics Credits: 3 hrs
- CRM 420 - Drugs, Crime and Criminal Justice Credits: 3 hrs
- CRM 488 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CRM 489 - Field Internship in Criminology and Criminal Justice Credits: 3 hrs each
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- LAW 403 - Employment Law Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- PLSC 270 - Public Administration Credits: 3 hrs
- PLSC 334 - Personnel Administration in Government Credits: 3 hrs
- PLSC 381 - Public Policy Analysis Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- PSY 301 - Introductory Experimental Psychology Credits: 4 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- SOCL 307 - Sociology of the Workplace Credits: 3 hrs
- SOCL 321 - Cooperation and Conflict in Society Credits: 3 hrs
- SOCL 345 - Qualitative Methods Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 11-12 hours
Program Total: 124 hours

Notes:
*SOCL 341 and SOCL 342 Quantitative Methods of Social Research I and II may be substituted for SOCL 250 and SOCL 304.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Required Courses: 18 hours

- SOCL 105 - Introductory Sociology Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs
- SOCL 304 - Methods in Sociological Research Credits: 3 hrs
- SOCL 308 - Social Psychology Credits: 3 hrs
- SOCL 403 - Modern Sociological Theory Credits: 3 hrs
- SOCL 405 - Senior Seminar in Sociology Credits: 3 hrs One option from the following:

Option 1: General Sociology: 15 hours
Required Courses: 3 hours

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs Restricted Elective Courses: 6 hours

Two courses from the following:

- ANTH 336 - Social and Cultural Change Credits: 3 hrs
- SOCL 307 - Sociology of the Workplace Credits: 3 hrs
- SOCL 310 - Social Stratification Credits: 3 hrs
- SOCL 311 - Social Gerontology Credits: 3 hrs
- SOCL 312 - Medical Sociology Credits: 3 hrs
- SOCL 336 - Social and Cultural Change Credits: 3 hrs

Elective Courses: 6 hours
Choose from courses in sociology, anthropology, criminology. Must be at the 300-level or above.

Option 11: Applied Sociology: 15 hours
Required Courses: 9 hours

- SOCL 230 - Introduction to Applied Sociology Credits: 3 hrs
- SOCL 310 - Social Stratification Credits: 3 hrs
- SOCL 489 - Internship in Sociology Credits: 3 hrs

Restricted Electives: 6 hours

Students must take two courses from one of the following four areas:
Family/Health/Aging Concentration:

- SOCL 303-Sociology of Childhood and Youth Credits: 3 hrs
- SOCL 311 - Social Gerontology Credits: 3 hrs
- SOCL 312 - Medical Sociology Credits: 3 hrs
- SOCL 450 - The Family Credits: 3 hrs

Public/Private Sector Concentration:

- SOCL 306 - The Urban Community Credits: 3 hrs
- SOCL 307 - Sociology of the Workplace Credits: 3 hrs
- SOCL 321 - Cooperation and Conflict in Society Credits: 3 hrs
- SOCL 334 - Population Credits: 3 hrs
- SOCL 462 - Complex Organizations Credits: 3 hrs

Deviance Concentration:

- CRM 301-Criminology Credits: 3 hrs
- CRM 337-Deviance and Society Credits: 3 hrs
- CRM 354 - Juvenile Delinquency Credits: 3 hrs
- CRM 370 - White Collar Crime Credits: 3 hrs
- CRM 412 - Law and Society Credits: 3 hrs
- SOCL 333 - Violence and Society Credits: 3 hrs

Media/Technology Concentration:

- SOCL 260 - Media and Violence ( 3 hrs )
- CMT 425-Communication Technology and Social Change Credits: 3 hrs
- SOCL 440 - Sociology of Technology Credits: 3 hrs
- STS 495-Technology, Values, and the Future Credits: 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.

## Minor

## Anthropology Minor

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 140 - Introduction to Physical Anthropology Credits: 3 hrs
- ANTH 150 - Introductory Archaeology Credits: 3 hrs
- ANTH 210 - History of Anthropological Theory Credits: 3 hrs

Elective Courses: 8 hours

One 200-level culture-area course from the following:

- One course at the 300 - or $400-\mathrm{level}$ ( 3 hrs )
- Two additional hours in anthropology ( 2 hrs )
- ANTH 233 - Cultures of Mesoamerica and the Caribbean Credits: 3 hrs
- ANTH 236 - Peoples and Cultures of Africa Credits: 3 hrs
- ANTH 237 - Native North American Cultures Credits: 3 hrs
- ANTH 248 - Peoples and Cultures of the Pacific Credits: 3 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

- CRM 300-Criminal Justice Credits: 3 hrs
- CRM 301-Criminology Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs

Restricted Criminology Elective Courses: 6 hours
Two courses from the following:

- CRM 331 - Introduction to Corrections Credits: 3 hrs
- CRM 354 - Juvenile Delinquency Credits: 3 hrs
- CRM 370 - White Collar Crime Credits: 3 hrs
- CRM 412 - Law and Society Credits: 3 hrs
- CRM 420 - Drugs, Crime and Criminal Justice Credits: 3 hrs
- CRM 431 - Policing in Society Credits: 3 hrs
- CRM 460 - Criminal Law II Credits: 3 hrs

Restricted Social Science Elective Courses: 6 hours
Two courses from the following:

- HLED 490 - Drug Use and Abuse Credits: 3 hrs


## Error in Printed Catalog

- PHIL 355 - Philosophy of Law Credits: 3 hrs
- PLSC 308-Political Violence and Revolution Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SOCL 462 - Complex Organizations Credits: 3 hrs
- SWRK 431 - Substance Abuse Credits: 3 hrs

Minor Total: 21 hours

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

## Gerontology Minor

The gerontology minor is administered by the Department of Sociology, Anthropology and Criminology in the College of Arts and Sciences 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.

Required Courses: 13-14 hours

- BIO 259 - Biology of Aging Credits: 2 hrs
- GERT 212 - Introduction to Gerontology Credits: 3 hrs
- PSY 323 - Psychology of Human Aging Credits: 3 hrs
- SOCL 311 - Social Gerontology Credits: 3 hrs

One course from the following:

- GERT 488 - Gerontology Practicum/ Seminar Credits: 2 hrs
- GERT 489 - Gerontology Practicum/ Seminar Credits: 3 hrs

Elective Courses: 7-8 hours

Students must select 7-8 hours from the following courses:
Psychological Aspects of Aging

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs
- SWRK 413 - Women and Aging Credits: 3 hrs
or
- WGST 413 - Women and Aging Credits: 3 hrs Biological and Health Related Aspects of Aging
- DTC 202 - Principles of Human Nutrition Credits: 3 hrs
or
- DTC 203 - Nutrition for Health Professionals Credits: 3 hrs
or
- DTC 204 - Sports Nutrition Credits: 3 hrs
- DTC 372 - Nutrition of the Life Cycle Credits: 3 hrs
- HLED 420 - Health and Aging Credits: 3 hrs
- IDE 111 - Human Factors and Universal Design Credits: 3 hrs
- IDE 503 - Physical Environments for Aging Credits: 2 hrs
- THRC 310 - Leisure and Aging Credits: 3 hrs

Policies and Services for the Aging

- GERT 497 - Independent Study Credits: 1 hr
- GERT 498 - Independent Study Credits: 2 hrs
- GERT 499 - Independent Study Credits: 3 hrs
- GERT 509 - Older Adults and Chemical Dependency Credits: 1 hr
- GERT 511 - Elders and Their Families Credits: 2 hrs
- GERT 513 - Intergenerational Programs and Services Credits: 2 hrs
- GERT 515 - Sexuality and Aging Credits: 1 hr
- GERT 516 - The Elderly and the Law Credits: 1 hr
- GERT 517 - Developing Funding Proposals for Aging Programs Credits: 2 hrs
- GERT 518 - innovations in Alzheimer's Care Credits: 2 hrs
- GERT 523 - Designing Programs for People with Dementia Credits: 2 hrs
- GERT 524 - Families and Dementia Credits: 2 hrs
- GERT 528 - Advanced Issues in Dementia Care Credits: 2 hrs
- GERT 532 - Aging Through the Eyes of the Old Credits: 2 hrs
- GERT 590 - Special Topics Credits: 1 hr
- HLAD 310 - Administration of Health Care Organizations Credits: 2 hrs
- SPGN 591 - Special Topics Credits: 2 hrs
- SWRK 420 - Working with Aging People Credits: 3 hrs

Minor Total: 21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
*Students who are required to complete a practicum in a setting serving older people as a part of their major may request that this experience fulfill the practicum component GERT488/489.
**Students can only take DTC202 or DTC203 or DTC204.
***This course is required for social work majors.

## 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

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 329 - Medical Anthropology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs
- SOCL 311 - Social Gerontology Credits: 3 hrs
- SOCL 312 - Medical Sociology Credits: 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.

## 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

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- ANTH 309 - Culture and Personality Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs
- SOCL 204 - Marriage and Family Credits: 3 hrs
- SOCL 303 - Sociology of Childhood and Youth Credits: 3 hrs
- SOCL 344 - Sociology of Gender Credits: 3 hrs
- SOCL 450 - The Family Credits: 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

Required Courses: 14-15 hours

- Sociology or criminology courses at the 300-level or above (8-9 hrs)
- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 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.

# Women's and Gender Studies Programs 

## Women's and Gender Studies

Address: 714 Pray-Harrold
Phone: 734.487.1177
Web site: http://www.emich.edu/wstudies
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 Programs and Courses

## Major

## Women's and Gender Studies Major

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.
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours
Core Courses: 9 hours

- PHIL 226 - Feminist Theory Credits: 3 hrs
- WGST 200 - Introduction to Women's Studies Credits: 3 hrs
- WGST 226 - Feminist Theory Credits: 3 hrs
- WGST 400 - Capstone Seminar Credits: 3 hrs
(substitute course as approved by adviser)
Restricted Elective Courses: 12 hours
Three hours from each of the following four groups:

1. Arts and Humanities

- CASI 240 - Reel Women/Real Women Credits: 3 hrs
- CLAS 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 415 - Sexual Communities in American History Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- WGST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- WGST 335 - History of Women in Europe Credits: 3 hrs
- WGST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- WGST 415 - Sexual Communities in American History Credits: 3 hrs
- WGST 426 - Topics in Gender and Philosophy Credits: 3 hrs
- WGST 436 - Women in Art Credits: 3 hrs
- WGST 443 - Women in Literature Credits: 3 hrs

11. Social and Physical Sciences

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- ANTH 208 - Minority Women in the United States Credits: 3 hrs
- BIO 269 - Biology of Sex and Gender Credits: 3 hrs
- CRM 338 - Women, Crime and Justice Credits: 3 hrs
- CTAC 260 - Gender Communication Credits: 3 hrs
- ECON 328 - Economics of Women Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PSY 242 - Psychology of Women Credits: 3 hrs
- SOCL 208 - Minority Women in the United States Credits: 3 hrs
- SOCL 338 - Women, Crime and Justice Credits: 3 hrs
- SOCL 344 - Sociology of Gender Credits: 3 hrs
- STS 420 - Women and Technology Credits: 3 hrs
- WGST 208 - Minority Women in the United States Credits: 3 hrs
- WGST 242 - Psychology of Women Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 260 - Gender Communication Credits: 3 hrs
- WGST 269 - Biology of Sex and Gender Credits: 3 hrs
- WGST 328 - Economics of Women Credits: 3 hrs
- WGST 338 - Women, Crime and Justice Credits: 3 hrs
- WGST 344 - Sociology of Gender Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs
- WGST 365 - Women and Politics Credits: 3 hrs
- WGST 420 - Women and Technology Credits: 3 hrs

111. Multicultural and Cross-Cultural Studies

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 361 - The African American Family Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- ANTH 355 - Anthropology of Women Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 355 - Anthropology of Women Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs
IV. Practice and Policy
- BMMT 205 - Women in Business Credits: 3 hours
- COUN 450 - An Introduction: Counseling Concepts and Skills Credits: 3 hrs
- HLED 130 - Healthy Sexuality Credits: 3 hrs
- HLED 399 - Teaching about AIDS Credits: 1 hr
- HLED 460 - Concepts in Sexuality Education Credits: 3 hrs
- LEGL 313 - Family Law Credits: 3 hrs
- PHED 405 - Women in Sports Credits: 3 hrs
- PSY 240 - Psychology of Sex Credits: 3 hrs
- PSY 460 - Psychology of Film Credits: 3 hrs
- SOCL 450 - The Family Credits: 3 hrs
- SWRK 413 - Women and Aging Credits: 3 hrs
- SWRK 462 - Practice with Lesbian, Gay, Bisexual and Transgender Persons Credits: 3 hrs
- WGST 205 - Women in Business Credits: 3 hrs
- WGST 230 - Conversations with Girls Credits: 4 hrs
- WGST 387 - Cooperative Education in Women’s Studies Credits: 3 hrs
- WGST 405 - Women in Sports Credits: 3 hrs
- WGST 413 - Women and Aging Credits: 3 hrs
- WGST 418 - Women and the Law Credits: 3 hrs
- WGST 462 - Practice with Lesbian, Gay, Bisexual and Transgender Persons Credits: 3 hrs
- WGST 487 - Cooperative Education in Women's Studies Credits: 3 hrs

Elective Courses: 9 hours
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.
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.

## Minor

## 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

- WGST 200 - Introduction to Women's Studies Credits: 3 hrs Restricted Elective Courses: 12 hours

Select six hours from each of the following groups:

1. Arts and Humanities

- ART 436 - Women in Art Credits: 3 hrs
- CASI 240 - Reel Women/Real Women Credits: 3 hrs
- CLAS 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 335 - History of Women in Europe Credits: 3 hrs
- HIST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- HIST 415 - Sexual Communities in American History Credits: 3 hrs
- LITR 443 - Women in Literature Credits: 3 hrs
- PHIL 226 - Feminist Theory Credits: 3 hrs
- PHIL 426 - Topics in Gender and Philosophy Credits: 3 hrs
- WGST 226 - Feminist Theory Credits: 3 hrs
- WGST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- WGST 335 - History of Women in Europe Credits: 3 hrs
- WGST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- WGST 415 - Sexual Communities in American History Credits: 3 hrs
- WGST 426 - Topics in Gender and Philosophy Credits: 3 hrs
- WGST 436 - Women in Art Credits: 3 hrs
- WGST 443 - Women in Literature Credits: 3 hrs

11. Social and Physical Sciences

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 362 - Black Women: Religion and Sexism Credits: 3 hrs
- ANTH 208 - Minority Women in the United States Credits: 3 hrs
- ANTH 355 - Anthropology of Women Credits: 3 hrs
- BIO 269 - Biology of Sex and Gender Credits: 3 hrs
- CRM 338 - Women, Crime and Justice Credits: 3 hrs
- CTAC 260 - Gender Communication Credits: 3 hrs
- ECON 328 - Economics of Women Credits: 3 hrs
- PLSC 243 - Black Women: Politics and Racism Credits: 3 hrs
- PLSC 362 - Black Women: Religion and Sexism Credits: 3 hrs
- PLSC 365 - Women and Politics Credits: 3 hrs
- PSY 242 - Psychology of Women Credits: 3 hrs
- SOCL 208 - Minority Women in the United States Credits: 3 hrs
- SOCL 344 - Sociology of Gender Credits: 3 hrs
- STS 420 - Women and Technology Credits: 3 hrs
- WGST 208 - Minority Women in the United States Credits: 3 hrs
- WGST 242 - Psychology of Women Credits: 3 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 260 - Gender Communication Credits: 3 hrs
- WGST 269 - Biology of Sex and Gender Credits: 3 hrs
- WGST 328 - Economics of Women Credits: 3 hrs
- WGST 338 - Women, Crime and Justice Credits: 3 hrs
- WGST 344 - Sociology of Gender Credits: 3 hrs
- WGST 355 - Anthropology of Women Credits: 3 hrs
- WGST 362 - Black Women: Religion and Sexism Credits: 3 hrs
- WGST 365 - Women and Politics Credits: 3 hrs
- WGST 420 - Women and Technology Credits: 3 hrs

Elective Courses: 6 hours
Six hours from the following elective courses:

- AAS 243 - Black Women: Politics and Racism Credits: 3 hrs
- AAS 361 - The African American Family Credits: 3 hrs
- ANTH 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- BMMT 205 - Women in Business Credits: 3 hours
- COUN 450 - An Introduction: Counseling Concepts and Skills Credits: 3 hrs
- CTAC 275 - Interracial/Interethnic Communication Credits: 3 hrs
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- HLED 130 - Healthy Sexuality Credits: 3 hrs
- HLED 399 - Teaching about AIDS Credits: 1 hr
- HLED 460 - Concepts in Sexuality Education Credits: 3 hrs
- LEGL 313 - Family Law Credits: 3 hrs
- PHED 405 - Women in Sports Credits: 3 hrs
- PSY 240 - Psychology of Sex Credits: 3 hrs
- PSY 340 - Psychological Perspectives on Prejudice and Discrimination Credits: 3 hrs
- PSY 460 - Psychology of Film Credits: 3 hrs
- SOCL 214 - U.S. Racial and Cultural Minorities Credits: 3 hrs
- SOCL 450 - The Family Credits: 3 hrs
- SWRK 413 - Women and Aging Credits: 3 hrs
- SWRK 462 - Practice with Lesbian, Gay, Bisexual and Transgender Persons Credits: 3 hrs
- WGST 205 - Women in Business Credits: 3 hrs
- WGST 230 - Conversations with Girls Credits: 4 hrs
- WGST 243 - Black Women: Politics and Racism Credits: 3 hrs
- WGST 355 - Anthropology of Women Credits: 3 hrs
- WGST 387 - Cooperative Education in Women's Studies Credits: 3 hrs
- WGST 405 - Women in Sports Credits: 3 hrs
- WGST 413 - Women and Aging Credits: 3 hrs
- WGST 418 - Women and the Law Credits: 3 hrs
- WGST 462 - Practice with Lesbian, Gay, Bisexual and Transgender Persons Credits: 3 hrs
- WGST 487 - Cooperative Education in Women's Studies Credits: 3 hrs

Minor Total: 21 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.

## World Languages Programs

## World Languages

Address: 219 Alexander
Phone: 734.487.0338
E-mail: rweston3@emich.edu
Web site: www.emich.edu/public/foreignlanguages/fl_welcome.html
The Department of World Languages 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 bilingualbicultural 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 World Languages 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 SpanishEnglish, 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.

## $O$ ral proficiency interview requirement:

All students on teaching curricula in World Languages 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 World Languages. 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.
World Languages Programs and Courses

## Major

## 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

For specific requirements refer to the General Education Program .
Major Requirements: 33 hours

Group 1: Language Development: 12 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 443 - Advanced French Grammar and Composition Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 3 hrs

Group 111: Civilization and Culture: 6 hours

Selected from among the following four courses:

- FRNH 450 - French Civilization in Film Credits: 3 hrs
- FRNH 466 - French Speaking Cultures of the World Credits: 3 hrs
- FRNH 467 - French Culture and Civilization Credits: 3 hrs
- FRNH 476-20th-Century French Civilization Credits: 3 hrs

Group IV: Immersion Experience: 6 hours

- FRNH 490 - Intensive French Abroad Credits: 6 hrs

Group V: Capstone Experience: 3 hours

- FRNH 492 - Capstone Seminar in French Credits: 3 hrs

Minor Requirements: 20 hours
University Elective Courses: 31 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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for French.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 443 - Advanced French Grammar and Composition Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 3 hrs Group 1ll: Civilization and Culture: 6 hours

Selected from the among the following four courses:

- FRNH 450 - French Civilization in Film Credits: 3 hrs
- FRNH 466 - French Speaking Cultures of the World Credits: 3 hrs
- FRNH 467 - French Culture and Civilization Credits: 3 hrs
- FRNH 476-20th-Century French Civilization Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- FRNH 490 - Intensive French Abroad Credits: 6 hrs Group V: Capstone Experience: 3 hours
- FRNH 492 - Capstone Seminar in French Credits: 3 hrs Professional Studies: 42 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 12 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- FLAN 412 - Methods of Teaching Modern Languages in the Elementary Grades Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for French.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 443 - Advanced French Grammar and Composition Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 3 hrs Group 111: Civilization and Culture: 6 hours

Select from among the following four courses:

- FRNH 450 - French Civilization in Film Credits: 3 hrs
- FRNH 466 - French Speaking Cultures of the World Credits: 3 hrs
- FRNH 467 - French Culture and Civilization Credits: 3 hrs
- FRNH 476-20th-Century French Civilization Credits: 3 hrs

Group IV: Immersion Experience: 6 hours

- FRNH 490 - Intensive French Abroad Credits: 6 hrs Group V: Capstone Experience: 3 hours
- FRNH 492 - Capstone Seminar in French Credits: 3 hrs Professional Studies: 39 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 9 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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

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
For specific requirements refer to the General Education Program .
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- GERN 343 - German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs
- GERN 444 - Advanced German Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs

Group 111: Culture: 6 hours

- GERN 366 - The Cultures of German-Speaking Europe Credits: 3 hrs
- GERN 428 - German Literature and Film from 1945 to the Present Credits: 3 hrs Group IV: Immersion Experience: 6 hours
- GERN 490 - Intensive German in Europe Credits: 6 hrs Group V: Capstone Senior Seminar: 3 hours
- GERN 492 - Capstone Seminar in German Credits: 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- 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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for German.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- GERN 343-German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs
- GERN 444 - Advanced German Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs

Group 111: Culture: 6 hours

- GERN 366 - The Cultures of German-Speaking Europe Credits: 3 hrs
- GERN 428 - German Literature and Film from 1945 to the Present Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- GERN 490 - Intensive German in Europe Credits: 6 hrs

Group V: Capstone Senior Seminar: 3 hours

- GERN 492 - Capstone Seminar in German Credits: 3 hrs

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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 9 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

Minor Requirements: 20-26 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs. 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.

## 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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for German.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- GERN 343-German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs
- GERN 444 - Advanced German Conversation Credits: 3 hrs

Group 11: Literature: 6 hours

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs

Group 111: Culture: 6 hours

- GERN 366 - The Cultures of German-Speaking Europe Credits: 3 hrs
- GERN 428 - German Literature and Film from 1945 to the Present Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- GERN 490 - Intensive German in Europe Credits: 6 hrs

Group V: Capstone Experience: 3 hours

- GERN 492 - Capstone Seminar in German Credits: 3 hrs

Professional Studies: 42 hours
Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 12 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- FLAN 412 - Methods of Teaching Modern Languages in the Elementary Grades Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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.

## 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

For specific requirements refer to the General Education Program .

Major Requirements: 57 hours

Business Minor: 21 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 Requirements: 6 hours

- MKTG 460 - International Marketing Credits: 3 hrs

One course from the following:

- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs Language Area Studies Courses: 27 hours
- One FRNH at the 300 - or 400 -level ( 3 hrs )
- One FRNH at the 400-level (3 hrs)
- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 361 - French for International Trade Credits: 3 hrs
- FRNH 446 - Business French I Credits: 3 hrs
- FRNH 447 - Business French II Credits: 3 hrs
- GEOG 316 - History and Geography of Modern Europe Credits: 3 hrs
- HIST 316 - History and Geography of Modern Europe Credits: 3 hrs One course from the following:
- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs

Field Experience: 3 hours
One course from the following:

- FLAN 387 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 487 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 489 - Internship in Language and International Trade Credits: 3 hrs

Minor Requirements: 0 hours
Minor included in major above.
University Elective Courses: 27 hours
Program Total: 124 hours
Note:
E ach 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
For specific requirements refer to the General Education Program .
Major Requirements: 57 hours
Business Minor: 21 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 Business Requirements: 6 hours

- MKTG 460 - International Marketing Credits: 3 hrs

One course from the following:

- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Language and Area Studies Courses: 27 hours

- One GERN at the 300 - or 400 -level ( 3 hrs )
- One GERN at the $400-\mathrm{level}$ ( 3 hrs )
- GERN 343- German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 361 - German for International Trade Credits: 3 hrs
- GERN 446 - Business German I Credits: 3 hrs
- GERN 447 - Business German II Credits: 3 hrs

One option from the following:

- One GEOG ( 3 hrs ) and one HIST ( 3 hrs ) at the 300 - or 400 -level
- One HIST ( 3 hrs ) and one GERN ( 3 hrs ) at the 300 - or 400 -level
- One GEOG ( 3 hrs ) and one GERN ( 3 hrs ) at the 300 - or 400 -level

One Political Science course from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs

Field Experience: 3 hours

One course from the following:

- FLAN 387 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 487 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 489 - Internship in Language and International Trade Credits: 3 hrs
- GERN 490 - Intensive German in Europe Credits: 6 hrs

Minor Requirements: 0 hours
Minor included in major above.
University Elective Couses: 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.

## 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.

For specific requirements refer to the General Education Program .
Major Requirements: 57 hours

Business Minor: 21 hours
$S$ tudents 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

- MKTG 460 - International Marketing Credits: 3 hrs

One course from the following

- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Language and Area Studies Courses: 27 hours

- GEOG 326 - History and Geography of Modern Asia (3 hrs)
- One JPNE at the 300 - or 400 -level ( 3 hrs )
- One JPNE at the 400 -level (3 hrs)
- HIST 326 - History and Geography of Modern Asia Credits: 3 hrs
- JPNE 343 - Japanese Composition Credits: 3 hrs
- JPNE 361 - Japanese for International Trade Credits: 3 hrs
- JPNE 446 - Business Japanese I Credits: 3 hrs
- JPNE 447 - Business Japanese II Credits: 3 hrs

One Political Science course from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs

Field Experience: 3 hours
One course from the following:

- FLAN 387 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 487 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 489 - Internship in Language and International Trade Credits: 3 hrs Minor Requirements: 0 hours

Minor included in major above.
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.

## 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

For specific requirements refer to the General Education Program .

Major Requirements: 57 hours

Business Minor: 21 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

- MKTG 460 - International Marketing Credits: 3 hrs

One course from the following

- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Language Area Studies Courses: 27 hours

- One SPNH at the 300 - or $400-$ level ( 3 hrs )
- One SPNH at the 400 -level ( 3 hrs )
- GEOG 317 - History and Geography of Spanish America Credits: 3 hrs
- HIST 317 - History and Geography of Spanish America Credits: 3 hrs
- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 361 - Spanish for International Trade Credits: 3 hrs
- SPNH 446 - Business Spanish Credits: 3 hrs
- SPNH 447 - Business Spanish Credits: 3 hrs

One course from the following:

- PLSC 211 - Introduction to Comparative Government Credits: 3 hrs
- PLSC 212 - Introduction to International Politics Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 342 - International Organizations Credits: 3 hrs
- PLSC 354 - Government and Politics of Canada Credits: 3 hrs
- PLSC 367 - Latin American Politics Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs

Field Experience: 3 hours
One course from the following:

- FLAN 387 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 487 - Cooperative Education in Foreign Language Credits: 3 hrs
- FLAN 489 - Internship in Language and International Trade Credits: 3 hrs

Minor Requirements: 0 hours
Minor included in major above.
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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Group I: Language Development: 18 hrs

- JPNE 343 - Japanese Composition Credits: 3 hrs
- JPNE 344 - Japanese Conversation Credits: 3 hrs
- JPNE 361 - Japanese for International Trade Credits: 3 hrs
- JPNE 444 - Advanced Japanese Conversation Credits: 3 hrs
- JPNE 446 - Business Japanese I Credits: 3 hrs
- JPNE 447 - Business Japanese II Credits: 3 hrs Group II: Literature: 3 hrs
- JPNE 445 - Survey of Japanese Literature Credits: 3 hrs Group III: Culture: 3 hrs

Chose one of the following:

- ANTH 385 - Culture of Japan Credits: 3 hrs
- JPNE 448 - Readings on Japanese Culture Credits: 3 hrs Group IV: Immersion Experience: 6 hrs
- JPNE 490 - Intensive Japanese Abroad Credits: 6 hrs Group V: Capstone Seminar: 3 hrs
- JPNE 494 - Seminar in Japanese Studies Credits: 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 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 and NCATE 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 \#100,
"Japanese." In addition, all students must pass the Oral Proficiency Interview (OPI) for Japanese.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.

Major Requirements: 33 hours
Group 1: Language Development: 18 hours

- JPNE 343 - Japanese Composition Credits: 3 hrs
- JPNE 344 - Japanese Conversation Credits: 3 hrs
- JPNE 361 - Japanese for International Trade Credits: 3 hrs
- JPNE 444 - Advanced Japanese Conversation Credits: 3 hrs
- JPNE 446 - Business Japanese I Credits: 3 hrs
- JPNE 447 - Business Japanese II Credits: 3 hrs

Group 11: Literature: 3 hours

- JPNE 445 - Survey of Japanese Literature Credits: 3 hrs

Group 1ll: Civilization and Culture: 3 hours

Choose one from the following:

- ANTH 385 - Culture of Japan Credits: 3 hrs
- JPNE 448 - Readings on Japanese Culture Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- JPNE 490 - Intensive Japanese Abroad Credits: 6 hrs

Group V: Capstone Seminar: 3 hours

- JPNE 494 - Seminar in Japanese Studies Credits: 3 hrs

Professional Studies: 42 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

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

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

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Content Methods, Literacy and Technology: 12 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- FLAN 412 - Methods of Teaching Modern Languages in the Elementary Grades Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 344 - Spanish Conversation and Composition Credits: 3 hrs
- SPNH 443 - Advanced Spanish Grammar and Composition Credits: 3 hrs
- SPNH 444-Advanced Spanish Conversation and Composition Credits: 3 hrs

Group 11: Literature: 6 hours

- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 hrs
- SPNH 402 - Advanced Readings in Spanish American Literature Credits: 3 hrs

Group 111: Culture: 6 hours

- SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- SPNH 490 - Intensive Spanish Credits: 6 hrs

Group V: Capstone Seminar: 3 hours

- SPNH 492 - Senior Seminar in Spanish Credits: 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.

## 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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for Spanish.

General Education Requirements: 40 hours
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 344 - Spanish Conversation and Composition Credits: 3 hrs
- SPNH 443 - Advanced Spanish Grammar and Composition Credits: 3 hrs
- SPNH 444 - Advanced Spanish Conversation and Composition Credits: 3 hrs

Group 11: Literature: 6 hours

- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 hrs
- SPNH 402 - Advanced Readings in Spanish American Literature Credits: 3 hrs Group 1ll: Civilization and Culture: 6 hours
- SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs

Group IV: Immersion Experience: 6 hours

- SPNH 490 - Intensive Spanish Credits: 6 hrs

Group V: Capstone Experience: 3 hours

- SPNH 492 - Senior Seminar in Spanish Credits: 3 hrs

Professional Studies: 42 Hours
Pre-Admission Phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Content Methods, Literacy and Technology: 12 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- FLAN 412 - Methods of Teaching Modern Languages in the Elementary Grades Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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.

## 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 and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for Spanish.

General Education Requirements: 40 hours
Major Requirements: 33 hours
Group 1: Language Development: 12 hours

- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 344 - Spanish Conversation and Composition Credits: 3 hrs
- SPNH 443 - Advanced Spanish Grammar and Composition Credits: 3 hrs
- SPNH 444-Advanced Spanish Conversation and Composition Credits: 3 hrs

Group 11: Literature: 6 hours

- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 hrs
- SPNH 402 - Advanced Readings in Spanish American Literature Credits: 3 hrs

Group 1ll: Civilization and Culture: 6 hours

- SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs

Group IV. Immersion Experience: 6 hours

- SPNH 490 - Intensive Spanish Credits: 6 hrs

Group V: Capstone Experience: 3 hours

- SPNH 492 - Senior Seminar in Spanish Credits: 3 hrs

Professional Studies: 39 hours
Pre-Admission phase: The Learner and the Community: 8 hours
The following courses require formal admission to the teacher education program:
Phase 1: Curriculum, Assessment and the Social Context: 10 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 9 hours

- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

In order to meet NCATE standards, candidates who:

- major in a language shall complete more than half of their student teaching contact hours in that language.
- double major in a language and in another content area shall complete a portion of the student teaching experience in that language.
- double major in two languages shall student teach in each language.

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.

## Minor

## Business French Minor

Students minoring in business French are eligible to take the examinations listed under the major in business French.
Required Courses: 18 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 361 - French for International Trade Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 3 hrs
- FRNH 446 - Business French I Credits: 3 hrs
- FRNH 447 - Business French II Credits: 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 Courses: 12 hours

- GERN 361 - German for International Trade Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs

One course from the following:

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs One course from the following:
- GERN 446 - Business German I Credits: 3 hrs
- GERN 447 - Business German II Credits: 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.

## 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 Courses: 12 hours

- SPNH 361 - Spanish for International Trade Credits: 3 hrs
- SPNH 446 - Business Spanish Credits: 3 hrs

One culture course from the following:

- $\quad$ SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs

One literature course from the following:

- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 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.

## Classical Studies Minor

Required Courses: 12 hours

- ART 340 - History of Classical Art Credits: 3 hrs
- HIST 323 - Greek History Credits: 3 hrs
- HIST 324 - Roman History Credits: 3 hrs
- PHIL 330 - History of Philosophy: Ancient Credits: 3 hrs Restricted Elective Courses: 12 hours

One of the following groups:
Group A (Greek Language): 12 hours

- GREK 101 - Beginning Ancient Greek I Credits: 3 hrs
- GREK 102 - Beginning Ancient Greek II Credits: 3 hrs
- GREK 201 - Intermediate Ancient Greek I Credits: 3 hrs
- GREK 202 - Intermediate Ancient Greek II Credits: 3 hrs

Group B (Latin Language): 12 hours

- LATN 101 - Beginning Latin I Credits: 3 hrs
- LATN 102 - Beginning Latin II Credits: 3 hrs
- LATN 201 - Intermediate Latin I Credits: 3 hrs
- LATN 202 - Intermediate Latin II Credits: 3 hrs

Group C (Classical Culture and Heritage): 12 hours

## Choose 12 hours from the following:

- CHL 351 - World Mythology Credits: 3 hrs
- CLAS 106 - Rome and America Credits: 6 hrs
- CLAS 181 - The Legacy of Greece Credits: 3 hrs
- CLAS 301-Classical Mythology Credits: 3 hrs
- CLAS 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 302 - Near Eastern and Western Religions Credits: 3 hrs
- HIST 321 - Women and Gender in the Ancient World Credits: 3 hrs
- HIST 327 - Europe in Early Middle Ages 400-1050 Credits: 3 hrs
- HIST 328 - Europe in Late Middle Ages 1050-1400 Credits: 3 hrs
- HIST 330 - Europe in the Renaissance and Reformation Credits: 3 hrs
- LING 205 - English Words Credits: 3 hrs
- LNGE 134 - Etymology Credits: 3 hrs
- WGST 321 - Women and Gender in the Ancient World Credits: 3 hrs

Minor Total: 24 hours

Notes:

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 World Languages 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 Courses: 21 hours

- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 326 - Research Writing Credits: 3 hrs
- ESLN 412 - Academic ESL Writing Credits: 3 hrs
- ESLN 414 - Academic ESL Reading Credits: 3 hrs
- ESLN 416 - Academic ESL Speaking and Listening Credits: 3 hrs One course from the following:
- ESLN 310 - Advanced ESL Grammar Credits: 3 hrs
- ESLN 312 - Advanced ESL Writing Credits: 3 hrs

One course from the following:

- ESLN 314 - Advanced ESL Reading Credits: 3 hrs
- ESLN 316 - Advanced ESL Speaking and Listening Credits: 3 hrs Restricted Elective Courses: 3 hours

One course from the following:

- 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
- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- CTAC 356 - Argumentation and Debate Credits: 3 hrs
- CTAC 359 - Small Group Communication Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- LING 402 - Modern English Grammar Credits: 3 hrs

Minor Total: 24 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

- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 3 hrs
- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 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 Minor

Required Courses: 12 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 443 - Advanced French Grammar and Composition Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 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 Minor-Elementary, Secondary, Special Education-Elementary and Special Education-Secondary Teacher Certification

Successful completion of this minor, in the context of other program and NCATE requirements, 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for French.

Required Courses: 27 hours

Group 1: Language Development: 12 hours

- FRNH 343 - French Composition Credits: 3 hrs
- FRNH 344 - French Conversation Credits: 3 hrs
- FRNH 443 - Advanced French Grammar and Composition Credits: 3 hrs
- FRNH 444 - Advanced French Conversation Credits: 3 hrs

Group 11: Literature: 3 hours

## Choose one from the following:

- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 3 hrs

Group 111: Culture: 3 hours

## Choose one from of the following:

- FRNH 450 - French Civilization in Film Credits: 3 hrs
- FRNH 466 - French Speaking Cultures of the World Credits: 3 hrs
- FRNH 467 - French Culture and Civilization Credits: 3 hrs
- FRNH 476-20th-Century French Civilization Credits: 3 hrs

Group IV: Immersion Experience: 6 hours
Choose from one the following:

- FRNH 490 - Intensive French Abroad Credits: 6 hrs

Secondary Methods Requirement: 3 hours

- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs

In order to meet NCATE standards, candidates who minor in a language shall complete a portion of their student teaching in the language for which they are seeking certification.

Restricted Elective Courses: 8 hours

Eight hours in French at any level selected in consultation with an adviser.
Minor Total: 35 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

- Courses in French literature at the 400 -level (6 hrs)
- FRNH 341 - Survey of French Literature Credits: 3 hrs
- FRNH 342 - Survey of French Literature Credits: 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.

## German Language and Literature Minor

Required Course: 12 hours

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs
- GERN 343 - German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 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 Minor

Required Courses: 12 hours

- GERN 343 - German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs
- GERN 444 - Advanced German Conversation Credits: 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:

## 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 and NCATE requirements, 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for German.

Required Courses: 27 hours
Group 1: Language Development: 12 hours

- GERN 343-German Composition on Cultures and Civilization Credits: 3 hrs
- GERN 344 - Principles of German Phonetics and Conversation Credits: 3 hrs
- GERN 443 - German Syntax and Advanced Composition Credits: 3 hrs
- GERN 444 - Advanced German Conversation Credits: 3 hrs

Group 11: Literature: 3 hours
One of the following required, three-credit literary survey courses:

- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 3 hrs

Group 111: Culture: 3 hours

- GERN 366 - The Cultures of German-Speaking Europe Credits: 3 hrs Group IV. Immersion Experience: 6 hours
- GERN 490 - Intensive German in Europe Credits: 6 hrs

Secondary Methods Requirement: 3 hours

- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs In order to meet NCATE standards, candidates who minor in a language shall complete a portion of their student teaching in the language for which they are seeking certification.

Minor Total: 27 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

- Courses in German literature at the 400 -level ( 6 hrs )
- GERN 341 - Survey of German Literature Credits: 3 hrs
- GERN 342 - Survey of German Literature Credits: 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.

## Japanese Language Minor

Required Courses: 12 hours

- JPNE 343 - Japanese Composition Credits: 3 hrs
- JPNE 344 - Japanese Conversation Credits: 3 hrs
- JPNE 361 - Japanese for International Trade Credits: 3 hrs
- JPNE 444 - Advanced Japanese Conversation Credits: 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.

## Minor in Teaching English as a Second Language" (Elementary/Secondary Teacher Certification or K-12 Endorsement)

Required Courses: 24 hours

- LNGE 202 - Grammar for ESL Teachers Credits: 3 hrs
- LNGE 223 - Introduction to Language Credits: 3 hrs
- LNGE 425 - Second Language Acquisition Credits: 3 hrs
- TSLN 330 - TESOL Methodology: Literacy Credits: 3 hrs
- TSLN 332 - Methodology:Listening and Speaking Credits: 3 hrs
- TSLN 410 - TESOL Methodology:Content-Based Approaches Credits: 3 hrs
- TSLN 420 - SLA Testing and Assessment Credits: 3 hrs

One course from the following:

- LNGE 240 - Linguistic and Cultural Diversity in the U.S. Credits: 3 hrs
- LNGE 242 - Linguistic and Cultural Diversity: Global Englishes Credits: 3 hrs

Minor Requirements: 24 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

- Six hours in Spanish at the 300-level or above (6 hrs)
- SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 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 Courses: 12 hours

- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 344 - Spanish Conversation and Composition Credits: 3 hrs
- SPNH 443 - Advanced Spanish Grammar and Composition Credits: 3 hrs

One course from the following:

- Additional three credits in Spanish at the 300-level or above (3 hrs)
- SPNH 444 - Advanced Spanish Conversation and Composition Credits: 3 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-Elementary, Secondary, Special Education-Elementary and Special Education- Secondary Teacher Certification

Successful completion of this minor, in the context of other program and NCATE 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." In addition, all students must pass the Oral Proficiency Interview (OPI) for Spanish.

Required Courses: 27 hours
Group 1: Language Development: 12 hours

- SPNH 343 - Spanish Grammar and Composition Credits: 3 hrs
- SPNH 344 - Spanish Conversation and Composition Credits: 3 hrs
- SPNH 443 - Advanced Spanish Grammar and Composition Credits: 3 hrs
- SPNH 444 - Advanced Spanish Conversation and Composition Credits: 3 hrs Group 11: Literature: 3 hours

Choose one from the following:

- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 hrs Group 111: Culture: 3 hours

Choose one from the following:

- SPNH 301 - The Cultures of Spain Credits: 3 hrs
- SPNH 302 - The Cultures of Spanish America Credits: 3 hrs

Group IV: Required Immersion Experience: 6 hours

- SPNH 490 - Intensive Spanish Credits: 6 hrs

Group V: Secondary Methods: 3 hours

- FLAN 411 - Theory and Methods of Modern Language Teaching Credits: 3 hrs

In order to meet NCATE standards, candidates who minor in a language shall complete a portion of their student teaching in the language for which they are seeking certification.

Minor Total: 27 hours

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

## Spanish Literature Minor

Required Courses: 12 hours

- Six hours in Spanish at the 300-level or above

Two courses from the following:

- Six hours in Spanish at the 300-level or above
- SPNH 401 - Advanced Readings in Spanish Literature Credits: 3 hrs
- SPNH 402 - Advanced Readings in Spanish American Literature Credits: 3 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.

## College of Business

## Dean

David Mielke
473 Owen Building
Phone: 734.487.4140
Associate Dean
LaVerne Higgins
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 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 - Macomb Community College
B.B.A. Computer Information Systems--Macomb Communty College
B.B.A. Business - Monroe County Community College
B.B.A. Computer Information Systems--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
B.B.A. Business - Wayne Community College
B.B.A. International Business - Henry Ford 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:

| 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 10) 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. CTAC124 Fundamentals of Speech (3 hrs)
3. MGMT202 Business Communication (3 hrs)
4. Quantitative Reasoning course or waiver
5. ECON201 Principles of Macroeconomics (3 hrs) and ECON202 Principles of Microeconomics (3 hrs)
6. COB200L Introduction to Business ( 3 hrs )
7. ACC240 Principles of Financial Accounting (3 hrs) and ACC241 Principles of Managerial Accounting (3 hrs)
8. LAW293 Legal Environment of Business (3 hrs)
9. IS215 End-User Computing ( 3 hrs )
10. 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

## Freshmen

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. Businessintent 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 Effective Communication, Quantitative Reasoning, Perspectives on a Diverse World, Knowledge of the Disciplines and Learning Beyond the Classroom 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 in the program.)

Students must meet requirements for admission to the College of Business before enrolling in upper-division (300- or 400-level) business courses. Students must have a minimum 2.0 GPA for business core and minimum GPA for major courses. Students must have an overall 2.0 GPA to meet graduation requirements.

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.

## Accounting and Finance Programs

## Accounting and Finance

Address: 406 Gary M. Owen Building<br>Phone: 734.487.3320<br>E-mail: david.mielke@emich.edu<br>Web site: www.accfin.emich.edu<br>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.accfin.emich.edu

Accounting and Finance Programs and Courses

## Major

## 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 informations 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

For specfic requirements refer to the General Education Program .

Additional Requirements: 9 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

One course from the following:

- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs

Major Requirements: 69 hours
Business Core: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293-Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Discipline: 33 hours

- ACC 296 - The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 456 - Accounting Information Systems Implementation and Projects Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 315 - Object-Oriented Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required:
University Elective Courses: 6 hours
Program Total: 124 hours
Notes:
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 Major

Students majoring in accounting develop competencies necessary for professional careers in:
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
For specific requirements refer to the General Education Program .
Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 60 hours
Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Discipline: 24 hours
Required Courses: 18 hours

- ACC 296 - The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 496 - Financial Management and Controllership Credits: 3 hrs

Two courses from the following:

- ACC 442 - Advanced Cost Accounting Credits: 3 hrs
- ACC 450 - Internal Auditing Credits: 3 hrs
- ACC 475 - International Accounting Credits: 3 hrs
- ACC 479 - Special Topics Credits: 3 hrs
- ACC 491 - Accounting Honors Thesis Credits: 3 hrs
- ACC 499 - Directed Studies Credits: 3 hrs
- ACC 510 - Enterprise Systems Credits: 3 hrs
- ACC 511 - Accounting for E-Commerce Credits: 3 hrs
- ACC 540 - Corporate Financial Reporting Credits: 3 hrs
- ACC 546 - Public and Nonprofit Sector Accounting Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- ACC 560 - Fraud Examination Credits: 3 hrs
- ACC 584-Tax Research Methods, Practice and Problems Credits: 3 hrs
- ACC 585 - Business Tax Planning Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required:
University Elective Courses: 18 hours
Program Total: 124 hours
Note:
Each student must complete 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.
**FIN350, MGMT386 and MKTG360 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
For specific requirements refer to the General Education Program .
Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Undergraduate Requirements: 77 hours

Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Accounting Information Systems Core Courses: 33 hours

- ACC 296 - The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 456 - Accounting Information Systems Implementation and Projects Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
- IS 510 - Introduction to Object-Oriented Programming Credits: 3 hrs One course from the following:
- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 544 - Federal Income Taxation Credits: 3 hrs

University Elective Courses: 11 hours
Graduate Program Requirements: 24 hours
Required Accounting Courses: 9 hours

- ACC 540 - Corporate Financial Reporting Credits: 3 hrs
- ACC 567 - Professional Auditing Credits: 3 hrs
- ACC 696 - Accounting Theory, Research and Policy Credits: 3 hrs

Restricted Elective Accounting Courses: 9 hours

- ACC 510 - Enterprise Systems Credits: 3 hrs
- ACC 511 - Accounting for E-Commerce Credits: 3 hrs

One course from the following:

- ACC 541 - Advanced Financial Accounting Credits: 3 hrs
- ACC 546 - Public and Nonprofit Sector Accounting Credits: 3 hrs
- ACC 560 - Fraud Examination Credits: 3 hrs
- ACC 584 - Tax Research Methods, Practice and Problems Credits: 3 hrs
- ACC 585 - Business Tax Planning Credits: 3 hrs
- ACC 592 - Special Topics Credits: 3 hrs
- ACC 642 - Strategic Cost Management Credits: 3 hrs
- ACC 672 - Investment and Tax Financial Planning Credits: 3 hrs
- ACC 675 - International Accounting and Taxation Credits: 3 hrs
- ACC 681 - Special Topics Credits: 3 hrs
- ACC 699 - Independent Study Credits: 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
Notes:
Each student must complete 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 ACC 540, an exception requiring department approval may be requested.
**Students planning on taking the CPA exam in Michigan must take ACC 546
Accounting
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293-Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Accounting Core Courses: 21 hours

- ACC 296 - The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 496 - Financial Management and Controllership Credits: 3 hrs
- ACC 540 - Corporate Financial Reporting Credits: 3 hrs

One course from the following:

- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 544 - Federal Income Taxation Credits: 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:

- ACC 442 - Advanced Cost Accounting Credits: 3 hrs
- ACC 450 - Internal Auditing Credits: 3 hrs
- ACC 475 - International Accounting Credits: 3 hrs
- ACC 479 - Special Topics Credits: 3 hrs
- ACC 491 - Accounting Honors Thesis Credits: 3 hrs
- ACC 499 - Directed Studies Credits: 3 hrs
- ACC 510 - Enterprise Systems Credits: 3 hrs
- ACC 511 - Accounting for E-Commerce Credits: 3 hrs
- ACC 541 - Advanced Financial Accounting Credits: 3 hrs
- ACC 546 - Public and Nonprofit Sector Accounting Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- ACC 560 - Fraud Examination Credits: 3 hrs
- ACC 584 - Tax Research Methods, Practice and Problems Credits: 3 hrs
- ACC 585 - Business Tax Planning Credits: 3 hrs
- ACC 592 - Special Topics Credits: 3 hrs

University Elective Courses: 20 hours
Graduate Program Requirements: 24 hours
Required Accounting Courses: 6 hours

- ACC 567 - Professional Auditing Credits: 3 hrs
- ACC 696 - Accounting Theory, Research and Policy Credits: 3 hrs

Restricted Elective Accounting Courses: 12 hours
Twelve credit hours from the following:

- ACC 510 - Enterprise Systems Credits: 3 hrs
- ACC 511 - Accounting for E-Commerce Credits: 3 hrs
- ACC 541 - Advanced Financial Accounting Credits: 3 hrs
- ACC 546 - Public and Nonprofit Sector Accounting Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- ACC 560 - Fraud Examination Credits: 3 hrs
- ACC 584 - Tax Research Methods, Practice and Problems Credits: 3 hrs
- ACC 585 - Business Tax Planning Credits: 3 hrs
- ACC 592 - Special Topics Credits: 3 hrs
- ACC 642 - Strategic Cost Management Credits: 3 hrs
- ACC 672 - Investment and Tax Financial Planning Credits: 3 hrs
- ACC 675 - International Accounting and Taxation Credits: 3 hrs
- ACC 681 - Special Topics Credits: 3 hrs
- ACC 699 - Independent Study Credits: 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
Notes:

Each student must complete 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 ACC 546

## 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
For specific requirements refer to the General Education Program .

Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs Major Requirements: 60 hours

Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Discipline: 24 hours
Required Courses: 12 hours

- FIN 354 - Investments Credits: 3 hrs
- FIN 357 - Financial Markets and Institutions Credits: 3 hrs
- FIN 359 - Intermediate Financial Theory Credits: 3 hrs
- FIN 450 - Problems in Financial Management Credits: 3 hrs

Restricted Elective Courses: 12 hours
Twelve hours from the following:

- ACC 358 - Analysis of Financial Statements Credits: 3 hrs
- ECON 445 - Economic Fluctuations and Forecasting Credits: 3 hrs
- FIN 352 - Financial Management for Entrepreneurs Credits: 3 hrs
- FIN 370 - International Business Finance Credits: 3 hrs
- FIN 451 - Introduction to Speculative Markets Credits: 3 hrs
- FIN 453 - Commercial Banking Credits: 3 hrs
- FIN 454 - Mortgage Banking Credits: 3 hrs
- FIN 479 - Special Topics Credits: 3 hrs

Minor Requirements: 0 hours
No minor required:
University Elective Courses: 18 hours
Program Total: 124 hours
Notes:
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.

* FIN350, MGMT386 and MKTG360 must be completed before enrollment in MGMT490 Business Policy.


## Minor

## Accounting Minor - (For nonbusiness majors)

Required Courses: 18 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- ACC 296 - The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs

Restricted Elective Course: 3 hours
One course from the following:

- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 442 - Advanced Cost Accounting Credits: 3 hrs
- ACC 450 - Internal Auditing Credits: 3 hrs
- ACC 475 - International Accounting Credits: 3 hrs
- ACC 479 - Special Topics Credits: 3 hrs

Minor Total: 21 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes. Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Finance Minor - (For nonbusiness majors)

Required Course: 21 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- FIN 359 - Intermediate Financial Theory Credits: 3 hrs

Three courses from the following:

- ACC 358 - Analysis of Financial Statements Credits: 3 hrs
- FIN 354 - Investments Credits: 3 hrs
- FIN 370 - International Business Finance Credits: 3 hrs
- FIN 450 - Problems in Financial Management Credits: 3 hrs
- FIN 451 - Introduction to Speculative Markets Credits: 3 hrs
- FIN 453-Commercial Banking Credits: 3 hrs
- FIN 479 - Special Topics Credits: 3 hrs

Minor Total: 21 hours
Note:

All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes.
Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Computer Information Systems Programs

## Computer Information Systems

Address: 412 Gary M. Owen Building
Phone: 734.487.2454
E-mail: Imtiaz.Ahmad@emich.edu
Web site: www.cis.emich.edu

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, Monroe, and Washtenaw Community Colleges. 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.

Computer Information Systems Programs and Courses

## Major

## 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.

## General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .

Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Discipline: 30 hours

- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 315 - Object-Oriented Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- IS 417 - Systems Analysis and Design Credits: 3 hrs
- IS 421 - Enterprise Database Application Credits: 3 hrs
- IS 425 - Information Systems Project Management Credits: 3 hrs
- IS 449 - Information Systems Integration Credits: 3 hrs

One course from the following:

- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- IS 410 - Business Intelligence Credits: 3 hrs
- IS 416 - System Software Administration Credits: 3 hrs

Minor Requirements: 0 hours

No minor is required:
University Elective Courses: 12 hours
Program Total: 124 hours

Notes:

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.


## Minor

## Computer Information Systems Minor

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

- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
- IS 417 - Systems Analysis and Design Credits: 3 hrs
- IS 425 - Information Systems Project Management Credits: 3 hrs

Two courses from the following:

- IS 315 - Object-Oriented Application Development Credits: 3 hrs
- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- IS 410 - Business Intelligence Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- IS 416 - System Software Administration Credits: 3 hrs

Minor Total: 21 hours
Note:

All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes. Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Management Programs

## Management

Address: 466 Gary M. Owen Building
Phone: 734.487.3240
E-mail: fwagnerm@emich.edu
Web site: www.mgt.emich.edu
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.

Management Programs and Courses

## Major

## 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
For specific requirements refer to the General Education Program .
Additional Requirements: 9 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs Major Requirements: 60 hours

Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs

Discipline: 24 hours

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs

One course from the following:

- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs
- MKTG 479 - Special Topics Credits: 3 hrs

Two courses from the following:

- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- FIN 352 - Financial Management for Entrepreneurs Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs

Minor Requirements: 0 hours
no minor required:
University Elective Courses: 15 hours
Program Total: 124 hours
Notes:

* 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 MGMT 490 Business Policy. OM 374 can be take concurrently with MGMT 490


## 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
For specific requirements refer to the General Education Program .
Additional Requirements: 9 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 60 hours
Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs

Discipline: 24 hours

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs

Students must also complete twelve hours of restricted electives selected from at least two different functional areas
(ACC, FIN, IS, MGMT, MKTG, LAW, SCM, IB, OM) in the College of Business. (12 hours)
Minor Requirements: 0 hours
No minor required.
University Elective Courses: 15 hours
Program Total: 124 hours
Note:
*Each student must choose a writing intensive course as part of major completionrequirements. 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 MGMT 490 Business Policy. OM 374
can be take concurrently with MGMT 490.

## 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 bachelor of business administration degree include a minimum of 124 hours for graduation as stipulated in the catalog.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Additional Requirements: 9 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 60 hours
Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs

Discipline: 24 hours

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MGMT 486-Organizational Change and Team Building Credits: 3 hrs

Four courses from the following:

- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 403 - Managerial Communication: Theory and Application Credits: 3 hrs
- MGMT 450 - Leadership Theories and Practice Credits: 3 hrs
- MGMT 479 - Special Topics Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 482-Compensation Administration Credits: 3 hrs
- MGMT 483 - Staffing Organizations Credits: 3 hrs
- MGMT 484 - Management-Union Relations Credits: 3 hrs
- MGMT 485 - Human Resource Development Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs
*error in printed catalog
- MGMT 492 - Managing World Business Communication Credits: 3 hrs
- MGMT 495 - International Management Credits: 3 hrs
- MGMT 496 - Current Issues in Human Resource Management Credits: 3 hrs 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 MGMT 490 Business Policy. OM 374
can be take concurrently with MGMT 490

## Minor

## Entrepreneurship Minor

Required Courses: 12 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs

Restricted Elective Courses: 9 hours
Select three hours from the following:

- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs

Select six hours from the following:

- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- FIN 352 - Financial Management for Entrepreneurs Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Minor Total: 21 hours

Note:
All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes.
Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.
*Students may select one of these courses if not previously taken to meet restricted electives.

## General Business Minor - (For nonbusiness majors)

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs

One course from the following:

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 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 OM374 Introduction to Production/Operations Management (3 hrs) (if prerequisite DS265 or ECON310 is met) to fulfill foundation courses for the MBA program.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes.
Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Management Minor (For nonbusiness majors)

Required Courses: 6 hours

- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs

Elective Courses: 15 hours

Five courses from the following:

- At least three MGMT courses not listed as a required course ( $9-15 \mathrm{hrs}$ )
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Minor Total: 21 hours
Note:
All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes. Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Marketing Programs

## Marketing

Address: 469 Gary M. Owen Building
Phone: 734.487.3323
E-mail: anne.balazs@emich.edu
Web site: www.mkt.emich.edu

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 Programs and Courses

## Major

## International Business Major

The international business major offers a multidisciplinary focus within the College or 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, management 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).

For specific requirements refer to the General Education Program.
Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 60-66 hours

Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Area Studies Requirements: 4.5 hours

- IB 375 - Doing Business in Countries/Regions Credits: 1.5 hrs

Required IB Courses: 4.5 hours

- IB 210 - Fundamentals of Global Business Credits: 3 hrs
- IB 370 - International Business Ethics Credits: 1.5 hrs

Restricted Elective Course: 15 hours
The number of electives a students takes depends on the number of required IB restricted electives required in your major as indicated under each functional area.

- ACC 475 - International Accounting Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs
- FIN 370 - International Business Finance Credits: 3 hrs
- IB 475 - International Business: Study Abroad Perspective Credits: 3 hrs
- LAW 350 - International Business Law Credits: 3 hrs
- MGMT 492 - Managing World Business Communication Credits: 3 hrs
- MGMT 495 - International Management Credits: 3 hrs
- MKTG 375 - International Business Transactions Credits: 3 hrs
- MKTG 460 - International Marketing Credits: 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 World Languages.
**see note

- FRNH 261 - Introduction to Professional Language Study Credits: 3 hrs
- GERN 261 - Introduction to Professional Language Study Credits: 3 hrs
- JPNE 261 - Introduction to Professional Language Study Credits: 3 hrs
- SPNH 261 - Introduction to Professional Language Study Credits: 3 hrs

Functional Areas: 24-33 hours

Choose one of the following functional areas: Accounting, Accounting Information Systems, Computer Information Systems, Economics, Entrepreneurship, Finance, General Business, Management or Marketing.
I. Accounting: 24 hours

Required Courses:

- ACC 296-The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 475 - International Accounting Credits: 3 hrs
- ACC 496 - Financial Management and Controllership Credits: 3 hrs

Restricted Electives:
Choose one course from the following: (ACC 475 is required to fulfill the international business restricted electives)

- ACC 442 - Advanced Cost Accounting Credits: 3 hrs
- ACC 450 - Internal Auditing Credits: 3 hrs
- ACC 479 - Special Topics Credits: 3 hrs
- ACC 491 - Accounting Honors Thesis Credits: 3 hrs
- ACC 499 - Directed Studies Credits: 3 hrs
- ACC 540 - Corporate Financial Reporting Credits: 3 hrs
- ACC 541 - Advanced Financial Accounting Credits: 3 hrs
- ACC 546 - Public and Nonprofit Sector Accounting Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- ACC 567 - Professional Auditing Credits: 3 hrs
- ACC 585 - Business Tax Planning Credits: 3 hrs
II. Accounting Information Systems: 33 hours

Required Courses:

- ACC 296-The Accounting Cycle and Profession Credits: 3 hrs
- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- ACC 356 - Accounting Information Systems Credits: 3 hrs
- ACC 456 - Accounting Information Systems Implementation and Projects Credits: 3 hrs
- ACC 548 - Information Systems Audit and Control Credits: 3 hrs
- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 315-Object-Oriented Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
III. Computer Information Systems: 30 hours

Required Courses:

- IS 247 - Introduction to Web Application Development Credits: 3 hrs
- IS 315-Object-Oriented Application Development Credits: 3 hrs
- IS 320 - Business Data Communications and Computer Networks Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- IS 417 - Systems Analysis and Design Credits: 3 hrs
- IS 421 - Enterprise Database Application Credits: 3 hrs
- IS 425 - Information Systems Project Management Credits: 3 hrs
- IS 449 - Information Systems Integration Credits: 3 hrs

Restricted Electives:

Choose one course from the following:

- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- IS 410 - Business Intelligence Credits: 3 hrs
- IS 416 - System Software Administration Credits: 3 hrs
IV. Entrepreneurship: 24 hours

Required Courses:

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs

Choose one course from the following:

- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs
- MKTG 479 - Special Topics Credits: 3 hrs

Choose two courses from the following:

- ACC 342 - Managerial Cost Accounting Credits: 3 hrs
- ACC 344 - Principles of Taxation Credits: 3 hrs
- FIN 352 - Financial Management for Entrepreneurs Credits: 3 hrs
- MGMT 480-Management Responsibility and Ethics Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
V. Economics: 24 hours

Required Courses:

- ECON 301 - Intermediate Macroeconomic Analysis Credits: 3 hrs
- ECON 302 - Intermediate Microeconomic Analysis Credits: 3 hrs
- ECON 310 - Economic Statistics Credits: 3 hrs
- ECON 370 - Comparative Economic Systems Credits: 3 hrs
- ECON 415 - Introduction to Econometrics Credits: 3 hrs
- ECON 480 - International Economics Credits: 3 hrs

Restricted Electives:
Choose two courses from any 300-400 level economics course. Choose one course if you chose ECON 370 under international business restricted electives. ECON 480 is required to fulfill the international business restricted electives. (Business related topics are suggested.)
VI. Finance: 24 hours

Required Courses:

- FIN 354 - Investments Credits: 3 hrs
- FIN 357 - Financial Markets and Institutions Credits: 3 hrs
- FIN 359 - Intermediate Financial Theory Credits: 3 hrs
- FIN 370 - International Business Finance Credits: 3 hrs
- FIN 450 - Problems in Financial Management Credits: 3 hrs

Restricted Electives:

Choose three courses from the following: (FIN370 is required to fulfill the international business restricted electives)

- ACC 340 - Intermediate Accounting Credits: 3 hrs
- ACC 540 - Corporate Financial Reporting Credits: 3 hrs
- ECON 445 - Economic Fluctuations and Forecasting Credits: 3 hrs
- FIN 352 - Financial Management for Entrepreneurs Credits: 3 hrs
- FIN 451 - Introduction to Speculative Markets Credits: 3 hrs
- FIN 453 - Commercial Banking Credits: 3 hrs
- FIN 454 - Mortgage Banking Credits: 3 hrs
- FIN 479 - Special Topics Credits: 3 hrs
VII. General Business: 24 hours

Required Courses:

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 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. Management: 24 hours

Required Courses:

- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 460 - Management Skills Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MGMT 486 - Organizational Change and Team Building Credits: 3 hrs
- MGMT 492 - Managing World Business Communication Credits: 3 hrs
- MGMT 495 - International Management Credits: 3 hrs

Restricted Electives:
Choose two courses from the following.

- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 403 - Managerial Communication: Theory and Application Credits: 3 hrs
- MGMT 450 - Leadership Theories and Practice Credits: 3 hrs
- MGMT 479 - Special Topics Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 482 - Compensation Administration Credits: 3 hrs
- MGMT 483 - Staffing Organizations Credits: 3 hrs
- MGMT 484 - Management-Union Relations Credits: 3 hrs
- MGMT 485 - Human Resource Development Credits: 3 hrs
- MGMT 496 - Current Issues in Human Resource Management Credits: 3 hrs
IX. Marketing: 24 hours

Required Courses:

- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 365 - Consumer Behavior Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 375 - International Business Transactions Credits: 3 hrs
- MKTG 460 - International Marketing Credits: 3 hrs
- MKTG 470 - Marketing Research Credits: 3 hrs
- MKTG 475 - Marketing Planning and Management Credits: 3 hrs

Restricted Electives:

Choose one course from the following:

- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 369 - Advertising Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 425 - Sports and Event Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs
- MKTG 461 - Sales Management Credits: 3 hrs
- MKTG 474 - Promotional Strategy Credits: 3 hrs
- MKTG 479 - Special Topics Credits: 3 hrs
- MKTG 499 - Independent Study Credits: 3 hrs
- SCM 380 - Introduction to Supply Chain Management Credits: 3 hrs
- SCM 385 - Logistics Credits: 3 hrs

Minor Requirements: 0 hours
No minor required:
Program Total: 124-145 hours
Notes:
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.
**** Students must take IB 375 three times to fulfill requirements as course content will change each semester to a different country or subregion within the broader area of study.

## 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
For specific requirements refer to the General Education Program.
Additional Requirements: 6 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 60 hours
Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Discipline: 24 hours

Required Courses: 15 hours

- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 365 - Consumer Behavior Credits: 3 hrs
- MKTG 368W - Marketing Strategy Credits: 3 hrs
- MKTG 470 - Marketing Research Credits: 3 hrs
- MKTG 475 - Marketing Planning and Management Credits: 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 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.
*FIN350, MGMT386 and MKTG360 must be completed before enrollment in MGMT490 Business Policy.

## Supply Chain Management Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Major Requirements: 63 hours
Business Core Courses: 36 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- COB 200 - Introduction to Business Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 490 - Business Policy Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Supply Chain Management Required Courses: 15 Hours

- IB 210 - Fundamentals of Global Business Credits: 3 hrs
- SCM 380 - Introduction to Supply Chain Management Credits: 3 hrs
- SCM 385 - Logistics Credits: 3 hrs
- SCM 386 - Purchasing and Supply Management Credits: 3 hrs
- SCM 465 - Global Supply Chain Management Credits: 3 hrs

Restricted Electives: 12 Hours

- ID 346 - Industrial Climate Credits: 3 hrs
- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- LAW 350 - International Business Law Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs
- SCM 420 - Operations Planning and Scheduling in Supply Chain Credits: 3 hrs
- SCM 464 - Advanced Logistics Credits: 3 hrs

University Electives: 21 hours

In addition to the required courses and restricted electives, the SCMIT recommends that SCM students consider taking IS 425 and IS 410.
Program Total: 124 hours
Note:

All 300-level core courses listed above must be completed before enrollment in MGMT 490 Business Policy.

## Minor

## Marketing Minor (For nonbusiness majors)

- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 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).

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 365 - Consumer Behavior Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 369 - Advertising Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 375 - International Business Transactions Credits: 3 hrs
- MKTG 379 - Special Topics Credits: 3 hrs
- MKTG 425 - Sports and Event Marketing Credits: 3 hrs
- MKTG 430 - Marketing of Services Credits: 3 hrs
- MKTG 460 - International Marketing Credits: 3 hrs
- MKTG 461 - Sales Management Credits: 3 hrs
- MKTG 470 - Marketing Research Credits: 3 hrs
- MKTG 474 - Promotional Strategy Credits: 3 hrs
- MKTG 475 - Marketing Planning and Management Credits: 3 hrs
- MKTG 479 - Special Topics Credits: 3 hrs
- MKTG 499 - Independent Study Credits: 3 hrs
- SCM 380 - Introduction to Supply Chain Management Credits: 3 hrs
- SCM 385 - Logistics Credits: 3 hrs
- SCM 386 - Purchasing and Supply Management Credits: 3 hrs
- SCM 464 - Advanced Logistics Credits: 3 hrs
- SCM 465 - Global Supply Chain Management Credits: 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 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.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes.
Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## Supply Chain Management Minor

Required Courses: 15 hours

- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs
- SCM 380 - Introduction to Supply Chain Management Credits: 3 hrs
- SCM 385 - Logistics Credits: 3 hrs
- SCM 386 - Purchasing and Supply Management Credits: 3 hrs

Restricted Electives: 6 hours
Two courses from the following:

- IB 210 - Fundamentals of Global Business Credits: 3 hrs
- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- LAW 350 - International Business Law Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs
- SCM 420-Operations Planning and Scheduling in Supply Chain Credits: 3 hrs
- SCM 464 - Advanced Logistics Credits: 3 hrs
- SCM 465 - Global Supply Chain Management Credits: 3 hrs

Minor Total: 21 hours
Notes:

All minors must have at least six hours of course work at the 300-level or above.
Students pursuing a COB minor must have a minimum cumulative GPA of 2.0 to enroll in 300/400 Business classes.
Students must be of Junior status (completion of 56 credit hours) to enroll in 300/400 Business classes.

## College of Education

Dean
Vernon C. Polite
310 John W. Porter Building
Phone: 734.487.1414
Associate Dean
Michael Bretting
310 John W. Porter Building
Phone: 734.487.1414
Associate Dean
Academic Accountability
Shawn Quilter
206 Porter Building
Phone: 734.487.1416
Assistant Dean
Field/Clinical Experiences
Barbara Gorenflo
206 Porter Building
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## 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 four academic colleges, each representing one or more program areas in which the institution prepares beginning teachers; students; and major administrators of the teacher preparation unit. 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).

## 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).

## Committee on Diversity

The Committee on Diversity is charged with designing, implementing and 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, English, French, geography, German, history, integrated science, mathematics, physical science, physics, political science, social studies, 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 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 Capítal 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 work 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 postbaccalaureate 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/

## Initial Certification (first professional license as a teacher)

Five-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 initial 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, which certifies the holder to teach only majors and minors in grades 6-12. 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, special education, technology and design, music, Japanese or physical education is normally eligible to teach in the specialty in grades K-12. EMU also offers occupational certificates. Occupational certificates can be used in specific vocational teaching settings, but they are not equivalent to provisional certificates. Information about occupational certificates is available in the School of Technology Studies in 122 Sill.

## Continuing Certification

The Michigan provisional teaching certificate earned in teacher preparation programs is valid for five years. In order to maintain a valid teaching credential, teachers must continue their studies toward a professional certificate. A minimum of 9 credit hours must be earned during the first five 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 not authorized 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 (valid for three years)

1. Nine 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 three credits may be transferred if approved by the certification coordinator. No community college credits or CEUs will be accepted.)
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.

## Second Renewal Certificate Requirements (valid 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 or CEUs will be accepted.)
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.
Professional Certificate Requirements
4. Three years of teaching ( 150 days per year, 450 days total).
5. 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 or CEVs will be accepted.) To meet state Reading requirements for the professional certificate, nine hours of reading courses for elementary or six hours for secondary must be posted on your transcripts. As of July 1, 2009, all teachers recommended for the professional certificate must complete an approved three credit course in reading diagnostics and remediation.
6. Photocopy of latest Michigan certificate (front side only).
7. Photocopy of transcripts, only if credit is from another college or university. Please do not send original transcripts to the Office of Academic Services.
8. 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.
Eastern Michigan University does not process renewals of professional certificates. Professional renewals are handled by contacting the Michigan Department of Education directly Contact the Michigan Department of Education by phone, 517.373 .3310 , or fax, 517.373 .0542 , to obtain an application to renew professional certificates.

## Adding Endorsements

Endorsements are available in various subject areas. These endorsements require coursework, field experience 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.

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.

Each undergraduate student is responsible for applying to the teacher preparation program 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. Students with 56 hours of transfer coursework with a decision GPA of 3.0 may apply for admission to the teacher preparation program without 12 earned hours at EMU.

Admission to the teacher preparation 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. Teaching majors and minors are unofficial until program admission. Students pursuing teacher certification should follow the catalog that exists at the time of program admission. It is important that students apply to the teacher preparation program as soon as they have earned 56 credit hours.

## 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 at EMU 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. Establish a 2.5 GPA in the first 24 credit hours and then apply to the post-baccalaureate teacher certification program. 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 eacher 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 the general education writing 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 lab 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 status of criminal/civil convictions.

Undergraduate students on academic probation may not earn credit for any graduate-level on-campus or off-campus courses (500-level and above).

Once admitted, students are considered teacher candidates. Manuals, policies and procedures are available to all teacher candidates at www.emich.edu/coe/oas. Teacher candidates should print the student manual, read it and keep a copy for their records.

The teacher preparation program has a process for identifying teacher candidates with professional weaknesses. The process is called red flagging and is explained in student and faculty manuals. Two red flags can lead to dismissal from the teacher preparation program.

## 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 for grades 6-8, an additional subject test associated with the major/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 degree and for eligibility for recommendation for the State of Michigan Provisional Elementary Certificate. See General Information Applicable to All Prospective Teachers for requirements having to do with admission to, retention in, and exit from the teacher preparation program.

Ordinarily, the degree earned is the bachelor of science. The bachelor of arts degree requires completion of one year of college credit in foreign language.

The state elementary provisional certificate is valid for teaching all subjects $\mathrm{K}-5$, 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 if the endorsement is earned. The Michigan Test for Teacher Certification (MTTC) for elementary education is \#83, "Elementary Education." A candidate is not considered for "program completion" until the candidate passes this test.

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.

## 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
Early Childhood Education
Elementary Integrated Science
English as a Second Language
French, German or Spanish Language
Health
Language Arts Group
Mathematics for the Elementary Teaching Certificate
Physical Education for Special Education (only for special education majors)
Planned Program (only for special education majors)
Reading
Structure of the Disciplines (not available for special education majors)
Technology and Design Education

## Secondary (Middle-High School) and K-12 Programs

The curricula for the secondary/K-12 teacher preparation 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 one year of college credit in foreign language.

An active articulation agreement exists between this program, Henry Ford Community College and Washtenaw Community College. For further details, see the Articulation Agreements section.

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
Geography
German
History (requires economics, geography or political science minor)
Integrated Science
Language, Literature and Writing (English)
Mathematics
Physical Science
Physics
Political Science

Social Studies (requires economics, geography, history or political science minor)
Spanish

K-12 Programs
French
German
Japanese Language and Culture
Music (Instrumental)
Music (Vocal)
Physical Education
Spanish
Technology and Design Education
Visual Arts Education

## Approved Minors for Secondary, K-12 and Special Education-Secondary Programs

Biology
Chemistry
Communication and Theatre Arts (speech)
Computer Science
Earth Science
$\dagger$ Economics
French
$\dagger$ Geography
German
Health
History
Language, Literature and Writing (English)
Mathematics
Physical Education
Physical Education for Special Education Majors (available only to special education majors)
Physics
$\dagger$ Political Science (requires history or social studies major)
$\dagger$ Psychology
Spanish

Note:
$\dagger$ Not available with a Special Education major

## Special Education Programs

## Admission

Admission requirements to the University, the teacher preparation 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 preparation 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 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:
3. Maintenance of a 2.5 cumulative grade point average.
4. Maintenance of a 2.5 cumulative grade point average in major courses in program of study.
5. 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.
6. 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 Experiences

Office of Academic Services
Address: 206 Porter
Phone: 734.487.1416

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 prior to student teaching. See the program descriptions for the exact requirement in each program. At least 50 percent of the experience must be in a classroom 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 must have pre-student teaching field experiences that include opportunities to work with students from different socio-economic levels, languages 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

Barbara Gorenflo, Assistant Dean for Clinical/Field Placements
Address: 206 Porter
Phone: 734.487.1416
E-mail: bgorenflo@emich.edu

## 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 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 and information for student teaching may be obtained from www.emich.edu/coe/oas and should be completed and returned to 206 Porter in accordance with the following schedule:

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\text { Fall student teaching: previous January } 15
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Spring student teaching: previous January 15
Summer student teaching: previous January 15
(for certified teachers only)

| Winter student teaching: | previous June 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. Have a positive recommendation from the designated representative of the department in which the major is located. The required form is the Evaluation of Professional Behaviors.
4. Register for the appropriate student teaching course (see course descriptions).
5. 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.
6. 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.
7. Complete a satisfactory criminal background check.

The following prerequisites are to be completed prior to student teaching and cannot be taken concurrently:

1. CURR 304 Curriculum and Methods: Elementary (Elementary) or CURR 305 Curriculum and Methods: Secondary (Secondary and K-12);
2. EDPS 322 Human Development and Learning (all except Special Education) or EDPS 325 Life Span Human Growth and Development (Special Education);
3. SOFD 328 Schools in a Diverse and Democratic Society;
4. Any of the following courses that are required in the program of studies: EDPS 340 Introduction to Assessment and Evaluation, ECE 341 Assessment of the Young Child, SPGN 390 Measurement and Diagnosis in Special Education, PHED 470 Assessment and Evaluation in Physical Education;
5. Secondary and K-12: the appropriate special methods course in the major or minor field;
6. Elementary: RDNG 300 Early Literacy, RDNG 310 Literacy Across the Curriculum in the Intermediate Grades and MATH 381 The Teaching of Mathematics, K-6;
7. Early childhood education: ECE 302 Methods of Integrating Curriculum and Resources in ECE and ECE 303 Implementing the Curriculum in ECE;
8. Completion of all professional education courses with a grade of " C " or better.
9. Passing scores on MTTC Basic Skills Test; and
10. 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. All final placement decisions are made by the Assistant Dean for Clinical/Field Experiences.
Students may not arrange their own student teaching assignments. Prior arrangements will not be honored by the College of Education Office of Academic Services.
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 must 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 Assistant Dean for Clinical/Field Experiences 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 the Assistant Dean 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 an other 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.

## 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.

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).

Criteria for admission to and continuance in the teacher preparation program are listed in the criteria section.

## Leadership and Counseling Programs

## Leadership and Counseling

Address: 304 Porter Building
Phone: 734.487.0255
E-mail: jtracy@emich.edu
Web site: www.emich.edu/coe/lc

## 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.

Leadership and Counseling Programs and Courses

## Special Education Programs

## Special Education

Address: 128 Porter Building

Phone: 734.487.3300
E-mail: michael.bretting@emich.edu
Web site: www.emich.edu/coe/sped

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 af_filiations 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 Certif_icate 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-K12. 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, JohnPalladino, Steve Camron, Gil Stiefel
Teachers of Students with Hearing Impairment: Linda Polter, Brenda Doster
Teachers of Students with Cognitive Impairment and Physical Impairment and Health Impairment: Jackie McGinnis, Kathlyn Parker, Phil Smith, Ann Orr, Myung-Sook Koh, Derrick Fries
Teachers of Students with Speech and Language Impairments: Ronald Hoodin, Bill Cupples, Carole Gorenflo, Lidia

## 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. Special Education majors must be admitted to the Teacher Preparation Program in the College of Education before they can be admitted to the Department of Special Education. A copy of the admissions letter must be attached to the application for department admission.
2. Special Education majors must have passed all three sections of the MTTC Basic Skills Test and a copy of the student's scores should be attached to the application.
3. Students must have a GPA of 2.5 of above to qualify for admission.
4. Students must secure a recommendation for their Special Education Program Area Advisor in order to be considered for admission.
5. Students MUST have completed SPGN251, Education of Students with Exceptionalities, and the introductory course(s) in the major area of study with a grade of "C" or better. These introductory courses are:
6. Emotional Impairment (EI): SPEI240
7. Hearing Impairment (HI): SPHI228, SPSI337 and SPHI392
8. Cognitive Impairment (CI): SPCI240 and SPCI350L
9. Physical Impairment and Health Impairment (POHI): SPPI240 and SPCI350L
10. Visual Impairment (VI): Demonstrate proficiency in keyboarding skills
11. Students must be free from any type of problem - administrative or academic.
12. Students must demonstrate that they have reasonable aptitude, maturity, stability, skills and understanding necessary for success in the professional field of special education.
13. 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 judgments 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). 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 specif ic 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.

Special Education Programs and Courses

## Major

## 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 hrs
For specific requirements refer to the General Education Program .

Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323W - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461-Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teacher's of Students with Cognitive Impairment Endorsement: 28 hours

- SPCI 240 - Preclinical Experiences - Cognitive Impairment Credits: 3 hrs
- SPCI 350L - Introduction to Cognitive Impairment Credits: 3 hrs
- SPCI 429 - Education of Students in Programs for Mild Cognitive Impairment Credits: 4 hrs
- SPCI 483 - Education of Students in Programs for Moderate or Severe Cognitive Impairment Credits: 4 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs

Professional Studies: 25 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Technology, Diversity and Teaching Environments: 3 hours
May be taken with Phase ll courses.

- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Curriculum and Assessment: 6 hours

May be taken with Phase l courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase 1ll: Methods and Technology: 3 hours

May be taken with Phase lV courses.

- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs Phase IV: Literacy, Culture and the Arts: 3 hours

May be taken with Phase lll courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs Phase V: Capstone Experience: 6 hours
- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20-30 hours

Select a minor from the approved list of elementary minors for special education majors.
Program Total: 150-160 hours
Note:
*Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Cognitive Impairment:
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs Teacher's of Students with Cognitive Impairment Endorsement: 28 hours
- $\quad$ SPCI 240 - Preclinical Experiences - Cognitive Impairment Credits: 3 hrs
- SPCI 350L - Introduction to Cognitive Impairment Credits: 3 hrs
- SPCI 429 - Education of Students in Programs for Mild Cognitive Impairment Credits: 4 hrs
- SPCI 483 - Education of Students in Programs for Moderate or Severe Cognitive Impairment Credits: 4 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs

Professional Studies: 22 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Curriculum and Assessment: 6 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase ll: Methods and Technology: 6 hours

- Methods Course: Subject Area Minor (3 hrs)
- RDNG 311-Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 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
For the specific requirements refer to the General Education Program .
Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 26 hours

- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Emotional Impairment Concentration: 28 hours

- SPEI 240 - Pre-clinical Experiences - Emotional Impairment Credits: 3 hrs
- SPEI 301 - Children and Adolescents with Emotional Impairment Credits: 4 hrs
- SPEI 401 - Programming, Methods and Curriculum for Elementary Students with Emotional Impairment Credits: 4 hrs
- SPEI 449 - Beyond Behavior Credits: 3 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs

Professional Studies: 25 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Technology, Diversity and Teaching Environments: 6 hours
May be taken with Phase ll courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Curriculum and Assessment: 6 hours

May be taken with Phase l courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase 111: Methods and Technology: 3 hours
May be taken with Phase lV courses.

- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs

Phase IV: Literacy, Culture and the Arts: 3 hours
May be taken with Phase Ill courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20-30 hours
Select a minor from the approved list of elementary minors for special education majors.
Program Total: 148-158 hours
Note:
*Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Emotional Impairment:
General Education Requirements: 40 hours
For the specific requirements refer to the General Education Program .
K-12 Special Education Core: 26 hours

- PSY 101-General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Emotional Impairment Concentration: 28 hours

- SPEI 240 - Pre-clinical Experiences - Emotional Impairment Credits: 3 hrs
- SPEI 301 - Children and Adolescents with Emotional Impairment Credits: 4 hrs
- SPEI 401 - Programming, Methods and Curriculum for Elementary Students with Emotional Impairment Credits: 4 hrs
- SPEI 449 - Beyond Behavior Credits: 3 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs

Professional Studies: 22 hours
Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Curriculum and Assessment: 6 hours
see note below

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 1l: Methods and Technology: 6 hours

- Methods Course: Minor Subject Area (3 hrs)
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 6 hours
see note below

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20 hours
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 addition, those selecting Elementary Certification must pass the "Elementary Education" certification test, \#83.

Registration for the first course in the hearing impaired sequence (SPHI 228) 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 SPHI 391.
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
For specific requirements refer to the General Education Program .
Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 26 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teachers of Students with Hearing Impairment Endorsement: 38 hours

- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPHI 228 - Education of Students with Hearing Impairment Credits: 3 hrs
- SPHI 375 - Fundamentals of Sign Communication Credits: 2 hrs
- SPHI 387 - Introductory Practicum - Students with Hearing Impairment Credits: 1 hr
- SPHI 391 - Language for Students with Hearing Impairment Credits: 4 hrs
- SPHI 392 - Introduction to Audiology Credits: 2 hrs
- SPHI 394 - Aural Habilitation Rehabilitation Credits: 3 hrs
- SPHI 435 - Phonetics and Hearing Impairment Credits: 2 hrs
- SPHI 436 - Speech Methods for Students with Hearing Impairment Credits: 2 hrs
- SPHI 437 - Adaptive Curriculum for Students with Hearing Impairment Credits: 3 hrs
- SPHI 487 - Speech Practicum - Students with Hearing Impairment Credits: 1 hr
- SPSI 337 - Language Acquisition Credits: 3 hrs

Professional Studies: 25 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase I: Technology, Diversity and Teaching Environments: 3 hours

May be taken with Phase II courses.

- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Curriculum and Assessment: 6 hours
May be taken with Phase I courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase III: Methods and Technology: 3 hours
May be taken with Phase IV courses.

- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs

Phase IV: Literacy, Culture and the Arts: 3 hours
May be taken with Phase III courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20 hours
Select a minor from the approved list of elementary minors for special education majors.
Program Total: 158 hours

Note:
Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Hearing Impairment
General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .
K-12 Special Education Core: 26 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs Teachers of Students with Hearing Impairment Endorsement: 38 hours
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPHI 228 - Education of Students with Hearing Impairment Credits: 3 hrs
- SPHI 375 - Fundamentals of Sign Communication Credits: 2 hrs
- SPHI 387 - Introductory Practicum - Students with Hearing Impairment Credits: 1 hr
- SPHI 391 - Language for Students with Hearing Impairment Credits: 4 hrs
- SPHI 392 - Introduction to Audiology Credits: 2 hrs
- SPHI 394 - Aural Habilitation Rehabilitation Credits: 3 hrs
- SPHI 435 - Phonetics and Hearing Impairment Credits: 2 hrs
- SPHI 436 - Speech Methods for Students with Hearing Impairment Credits: 2 hrs
- SPHI 437 - Adaptive Curriculum for Students with Hearing Impairment Credits: 3 hrs
- SPHI 487 - Speech Practicum - Students with Hearing Impairment Credits: 1 hr
- SPSI 337 - Language Acquisition Credits: 3 hrs

Professional Studies: 22 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase I: Curriculum and Assessment: 6 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Methods and Technology: 6 hours

- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs Methods Course: Subject Area Minor 3 hours

Phase III: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 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 is required in either instance and students must pass the certification test related to the minor. 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
For specific requirements refer to the General Education Program.
Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 15 hours

- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs Teacher of Students with Speech and Language Impairment Endorsement: 32 hours
- SPHI 392 - Introduction to Audiology Credits: 2 hrs
- SPHI 394 - Aural Habilitation Rehabilitation Credits: 3 hrs
- SPSI 332 - Acoustic Phonetics Speech Science Credits: 2 hrs
- SPSI 334 - Applied Phonetics Credits: 2 hrs
- SPSI 336 - Physiologic Phonetics: Anatomy and Physiology Credits: 3 hrs
- SPSI 337 - Language Acquisition Credits: 3 hrs
- SPSI 340 - Phonological and Articulation Disorders Credits: 3 hrs
- SPSI 342 - Language Disorders in Children Credits: 3 hrs
- SPSI 343-Clinical Methods in Speech-Language Pathology Credits: 2 hrs
- SPSI 347 - Management of Acquired Neurogenic Communication Disorders Credits: 3 hrs
- SPSI 452 - Voice Credits: 3 hrs
- SPSI 454 - Stuttering Credits: 3 hrs

Professional Studies: 25 hours
Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Technology, Diversity and Teaching Environments: 3 hours
May be taken with Phase ll courses.

- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Curriculum and Assessment: 6 hours
May be taken with Phase l courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase 1ll: Methods and Technology: 3 hours
May be taken with Phase lV courses.

- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs

Phase IV: Literacy, Culture and the Arts: 3 hours
May be taken with Phase Ill courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20-30 hours
Select a minor from the approved list of minors for secondary, K-12 and special education-secondary programs. Program Total: 141-151 hours

Note:
Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Speech/Language Impairment:
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
K-12 Special Education Core: 16 hours

- PSY 103-General Psychology Laboratory Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teacher of Students with Speech and Language Impairment Endorsement: 32 hours

- SPHI 392 - Introduction to Audiology Credits: 2 hrs
- SPHI 394 - Aural Habilitation Rehabilitation Credits: 3 hrs
- SPSI 332 - Acoustic Phonetics Speech Science Credits: 2 hrs
- SPSI 334 - Applied Phonetics Credits: 2 hrs
- SPSI 336 - Physiologic Phonetics: Anatomy and Physiology Credits: 3 hrs
- SPSI 337 - Language Acquisition Credits: 3 hrs
- SPSI 340 - Phonological and Articulation Disorders Credits: 3 hrs
- SPSI 342 - Language Disorders in Children Credits: 3 hrs
- SPSI 343 - Clinical Methods in Speech-Language Pathology Credits: 2 hrs
- SPSI 347 - Management of Acquired Neurogenic Communication Disorders Credits: 3 hrs
- SPSI 452 - Voice Credits: 3 hrs
- SPSI 454 - Stuttering Credits: 3 hrs

Professional Studies: 19 hours

Pre-admisson phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Curriculum and Assessment: 6 hours

- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328 - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase ll: Content Methods and Technology: 3 hours

- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase lll: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 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

For specific requirements refer to the General Education Program.

K-12 Special Education Core: 15 hours

- PSY 101-General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs Speech/Language Pathology Requirements: 32 hours
- SPHI 392 - Introduction to Audiology Credits: 2 hrs
- SPHI 394 - Aural Habilitation Rehabilitation Credits: 3 hrs
- SPSI 332 - Acoustic Phonetics Speech Science Credits: 2 hrs
- $\quad$ SPSI 334 - Applied Phonetics Credits: 2 hrs
- SPSI 336 - Physiologic Phonetics: Anatomy and Physiology Credits: 3 hrs
- SPSI 337 - Language Acquisition Credits: 3 hrs
- SPSI 340 - Phonological and Articulation Disorders Credits: 3 hrs
- SPSI 342 - Language Disorders in Children Credits: 3 hrs
- SPSI 343 - Clinical Methods in Speech-Language Pathology Credits: 2 hrs
- SPSI 347 - Management of Acquired Neurogenic Communication Disorders Credits: 3 hrs
- SPSI 452 - Voice Credits: 3 hrs
- SPSI 454 - Stuttering Credits: 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.
Students must have a 3.0 GPA in order to be admitted into SPSI courses.

## 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 (SC). 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, "Physically or otherwise Health Impaired." 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

For specific requirements refer to the General Education Program.
Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs Teacher of Students with Physical and Other Health Impairment Endorsement: 33-35 hours
- An approved course in Human Anatomy and Physiology (4-5 hrs)
- An approved course in Human Disease Process (3-4 hrs)
- SPCI 350L - Introduction to Cognitive Impairment Credits: 3 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs
- SPPI 240 - Preclinical Experiences - POHI Credits: 3 hrs
- SPPI 412 - Ancillary Services and Health Procedures for Teachers of Physically Impaired Credits: 2 hrs
- SPPI 414 - Educational Strategies for Teachers of the Physically Impaired Credits: 4 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs

Professional Studies: 25 hours
Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Technology, Diversity and Teaching Environments: 3 hours
May be taken with Phase ll courses.

- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Curriculum and Assessment: 6 hours
May be taken with Phase l courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase 111: Methods and Technology: 3 hours
May be taken with Phase lV courses.

- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs

Phase IV: Literacy, Culture and the Arts: 3 hours
May be taken with Phase Ill courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20-24 hours
Select a minor from the approved list of elementary minors for special education majors.
Program Total: 155-161 hours
Note:
*Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Physical Impairment and Health Impairment:
General Education Requirements: 40 hours
For specific requirements refer to theGeneral Education Program.
K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323W - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teacher of Students with Physical Impairment and Other Health Impairment Endorsement: 33-35 hours

- An approved course in Human Anatomy and Physiology (4-5 hrs)
- An approved course in Human Disease Process (3-4 hrs)
- SPCI 350L - Introduction to Cognitive Impairment Credits: 3 hrs
- SPLI 468 - Education of Children with Learning Disabilities Credits: 2 hrs
- SPPI 240 - Preclinical Experiences - POHI Credits: 3 hrs
- SPPI 412 - Ancillary Services and Health Procedures for Teachers of Physically Impaired Credits: 2 hrs
- SPPI 414 - Educational Strategies for Teachers of the Physically Impaired Credits: 4 hrs
- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs

Professional Studies: 22 hours
Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs Phase 1: Curriculum and Assessment: 6 hours
- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Methods and Technology: 6 hours

- Methods Course: Minor Subject Area (3 hrs)
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Major Requirements: 20-24 hours
Select a minor from the approved list of elementary minors for special education majors.
Program Total: 143-149 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 (SK). 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

For specific requirements refer to the General Education Program.
Additional Requirements: 9 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs

K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461-Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teacher of Students with Visual Impairment Endorsement: 32 hours

- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPVI 365 - Braille Credits: 3 hrs
- SPVI 366 - The Eye and Vision - Anatomy and Physiology Credits: 2 hrs
- SPVI 368 - Mobility Training for Persons with Visual Impairment Credits: 2 hrs
- SPVI 369 - Community Considerations for Persons with Visual Impairment Credits: 3 hrs
- SPVI 464 - Methods of Teaching Children who are Blind Credits: 3 hrs
- SPVI 465 - Braille II: Nemeth Code Credits: 3 hrs
- SPVI 467 - Education of Children with Visual Impairment Credits: 2 hrs
- SPVI 469 - Technology for Persons with Visual Impairment Credits: 2 hrs

Professional Studies: 25 hours
Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs

Phase 1: Technology, Diversity and Teaching Environments: 3 hours

May be taken with Phase lll courses.

- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Curriculum and Assessment: 6 hours

May be taken with Phase l courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase 1ll: Methods and Technology: 3 hours
May be taken with Phase lV courses.

- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs

Phase IV: Literacy, Culture and the Arts: 3 hours
May be taken with Phase lll courses.

- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs

Minor Requirements: 20-30 hours
Select a minor from the approved list of elementary minors for special education majors. Program Total 154-164 hours

Note:
*Admission to teacher education required.
Secondary Teacher Certification and Endorsement in Visual Impairment:
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
K-12 Special Education Core: 28 hours

- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 271 - Speech and Language Development in Children, Adolescents and Young Adults with Exceptional Learning Needs Credits: 2 hrs
- SPGN 323 - Writing for Professionals in Special Education Credits: 3 hrs
- SPGN 390 - Measurement and Diagnosis in Special Education Credits: 3 hrs
- SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School, Family and Community Interaction Credits: 3 hrs
- SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities Credits: 3 hrs
- SPGN 471 - Curriculum and Transitions for Secondary Special Education Credits: 3 hrs
- SPGN 481 - Assistive and Instructional Technology in Special Education Credits: 3 hrs

Teacher of Students with Visual Impairment Endorsement: 32 hours

- SPGN 491 - Special Education Student Teaching and Seminar Credits: 12 hrs
- SPVI 365 - Braille Credits: 3 hrs
- SPVI 366 - The Eye and Vision - Anatomy and Physiology Credits: 2 hrs
- SPVI 368 - Mobility Training for Persons with Visual Impairment Credits: 2 hrs
- SPVI 369 - Community Considerations for Persons with Visual Impairment Credits: 3 hrs
- SPVI 464 - Methods of Teaching Children who are Blind Credits: 3 hrs
- SPVI 465 - Braille II: Nemeth Code Credits: 3 hrs
- SPVI 467 - Education of Children with Visual Impairment Credits: 2 hrs
- SPVI 469 - Technology for Persons with Visual Impairment Credits: 2 hrs Professional Studies: 22 hours

Pre-Admission phase: The Learner and the Community: 4 hours

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs Phase 1: Curriculum and Assessment: 6 hours
- CURR 305 - Curriculum and Methods: Secondary Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs Phase 11: Methods and Technology: 6 hours
- Methods Course: Subject Area (3 hrs)
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 6 hours

- EDUC 499 - Student Teaching Credits: 6 hrs


## Minor

# "Planned Program" Minor Available to Special Education Majors seeking Elementary Teacher Certification 

Required Courses: 25 hours

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- GEOG 348 - Teaching Social Studies in Elementary Schools Credits: 3 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Restricted Elective Courses: 5 hours

Choose five hours from the following:

- ART 300-Art Integration for the Elementary Teacher Credits: 4 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- CHL 208 - Multicultural Children's Literature Credits: 3 hrs
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- HLED 210 - Standard American Red Cross First Aid Credits: 2 hrs
- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- MUSC 103-Introduction to Music Therapy Credits: 3 hrs
- MUSC 224 - Recreational Music Credits: 2 hrs
- MUSC 320 - Elementary Music Education Credits: 3 hrs

Planned Program Total: 30 hours

## Teacher Education Programs

## Teacher Education

Address: 313 Porter Building
Phone: 734.487.3260
E-mail: donald.bennion@emich.edu
Web site: www.emich.edu/coe/ted
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/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

Teacher Education Programs and Courses

## Certification

## Post-Baccalaureate Elementary and Secondary Teacher Certification Program

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, Chinese, business, management, marketing and technology and technology and design. General procedures for obtaining postbaccalaureate 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) Basic Skills Test on file at Eastern Michigan University.
3. Signed civil/criminal convictions statement.
4. Personal statement and letter of recommendation.
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 education 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.
3. Successful completion of required subject area tests.
4. Recent signed civil/criminal convictions statement.
5. Current adult and child CPR and first aid certification.

## 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 education 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 regions geography
- a course in U.S. government
- a course in general psychology
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs Major/Minor Requirements:

Students must complete one approved major and one approved minor or three approved minors.
Approved Majors in Elementary Education:

- Integrated Elementary Science
- Language Arts Group
- Mathematics for Elementary Teaching
- Reading
- Social Studies Group

Approved Minors in Elementary Education:

- Early Childhood Education
- English as a Second Language
- French, German and Spanish Language
- Health
- Integrated Elementary Science
- Language Arts Group
- Mathematics for Elementary Teaching
- Reading
- Structure of the Disciplines
- Technology and Design

Professional Education Sequence
Pre-Admission phase: The Learner and the Community:

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr

One course from the following:

- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 510 - Students with Disabilities in the General Education Classroom Credits: 3 hrs

Phase 1: Curriculum, Assessment and the Social Context:
Prerequisite: Admission to the teacher education program.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr
- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology:

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs Phase 111: Capstone Experience:

Prerequisite: Completion of Phases I and II.

- EDUC 492 - Student Teaching Credits: 12 hrs

100 Clock hours Pre-student Teaching Required
Note:
*These courses are listed as corequisites.

## Post-Baccalaureate Program in Secondary 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 education 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, Management, Marketing and Technology*
- Chemistry
- Communication and Theatre Arts (speech)
- Computer Science
- Earth Science
- French Language
- Geography
- German Language and Literature
- History (requires a minor in Economics, Geography or Political Science)
- Integrated Science*
- Language, Literature and Writing (English)
- Mathematics
- Physical Science Comprehensive Major*
- Physical Science Group Major (requires a minor in Biology, Chemistry, Earth Science or Physics)
- Physics
- Political Science
- Social Studies (requires a minor in Economics, Geography, History or Political Science)
- Spanish Language

Approved Minors for Secondary Education:

- Biology
- Chemistry
- Communication and Theatre Arts (speech)
- Computer Science
- Earth Science
- Economics
- French Language
- Geography
- German Language
- Health
- History
- Language, Literature and Writing (English)
- Mathematics
- Physical Education
- Physical Science (requires a major in Chemistry or Physics)
- Physics
- Political Science (requires a major in History or Social Studies)
- Psychology
- Spanish Language

Approved K-12 (Secondary Certificate):

- Chinese Language and Culture*
- French Language
- German Language and Literature
- Japanese Language and Culture
- Music Education (Instrumental)*
- Music Education (Vocal)*
- Physical Education
- Spanish Language
- Technology and Design Education
- Visual Art Education*
*This major does not require a minor.
Professional Education Sequence
Pre-Admission phase: The Learner and the Community:
- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr

One course from the following:

- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs
- SPGN 510 - Students with Disabilities in the General Education Classroom Credits: 3 hrs

Phase 1: Curriculum, Assessment and the Social Context:
Prerequisite: Admission to the teacher education program

- CURR 305-Curriculum and Methods: Secondary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 302 - Field Experience II: Secondary Credits: 1 hr
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology:

- Methods of Teaching in Subject Area (3 hrs)
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 1ll: Capstone Experience:

Prerequisite: Completion of Phases I and II.

- EDUC 492 - Student Teaching Credits: 12 hrs

100 Clock Hours Pre-student Teaching Required
Note:
*These courses are listed as corequisites.

## Major

## 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
For specific requirements refer to the General Education Program .

Additional Requirements: 21-22 hours

- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs

One course from the following:

- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 36 hours
Required Courses: 15 hours

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ENGL 307 - Writing Process for Elementary Teachers Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs Restricted Elective Courses: 21 hours

One course from the following:

- ENGL 225 - Writing in a Changing World Credits: 3 hrs
- ENGL 323 - Writing in the Professional World Credits: 3 hrs One course from the following:
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs One course from the following:
- CHL 208 - Multicultural Children's Literature Credits: 3 hrs
- LITR 160 - African American Literature Credits: 3 hrs
- LITR 161 - Native American Literature Credits: 3 hrs One course from the following:
- RDNG 220 - Instructional Uses of Trade Books Credits: 3 hrs
- RDNG 350 - Integrated Language Arts Instruction Credits: 3 hrs One course from the following:
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAR 324 - Oral Interpretation of Children's Literature Credits: 3 hrs One course from the following:
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 322 - Theatre for Children Credits: 3 hrs One course from the following:
- CHL 351 - World Mythology Credits: 3 hrs
- CHL 352 - Folk Literature: Ballads and Folk Tales Credits: 3 hrs
- CHL 450W - Children's Literature: Criticism and Response Credits: 3 hrs
- CHL 451W - Writing about Controversy in Literature for the Young Credits: 3 hrs
- CHL 454 - Children's Literature: Fiction Credits: 3 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 11 hours

May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253 - Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 7 hours
May be taken with Phase I courses. Students may not procees to Phase III until Phase II has been completed.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirement: 0-24 hours
Select a minor from the approved list of minors for elementary and special education-elementary.
Program Total: 156-181 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
For specific requirements refer to the General Education Program .
Additional Requirements: 18-19 hours

- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs One course from the following
- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103 - General Psychology Laboratory Credits: 1 hr Major Requirements: 30 hours

Required Courses: 22 hours

- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 210 - Algebra for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 240 - Geometry for Elementary/Middle School Teachers Credits: 3 hrs
- MATH 301-Advanced Topics in Elementary Mathematics Credits: 3 hrs
- MATH 403 - Current Research in Elementary School Mathematics Credits: 3 hrs

Restricted Elective Courses: 8 hours
Eight hours from the following, with at least three hours at the 300-or 400-level:

- Other mathematics courses as approved by the advising coordinator for elementary mathematics education
- MATH 110 - Mathematical Reasoning Credits: 3 hrs
- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- MATH 382 - Technology in the Mathematics Classroom Credits: 3 hrs
- MATH 401 - Mathematics and Its History for Elementary/Middle School Teachers Credits: 3 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 8 hours
May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253-Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 10 hours
May be taken with Phase I courses.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr
- RDNG 300 - Early Literacy Credits: 3 hrs

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirement: 0-24 hours
Select a minor from the approved list of minors for elementary and special education-elementary programs.
Program Total: 147-171 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
Successful completion of this major, in the content of other program requirements, qualifies the student for recommendation for an endorsement in Social Studies, certification codes RX. The certification test covering this field is \#84 "Social Studies."

General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .

Additional Requirements: 21-22 hours

- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs

One course from the following:

- PSY 101 - General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 36 hours

- GEOG 107 - Introduction to Geography Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- GEOG 320 - Geography of the United States and Canada Credits: 3 hrs
- HIST 123 - The United States to 1877 Credits: 3 hrs
- HIST 124 - The United States, 1877 to the Present Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
- PLSC 305 - Law and Policy in a Constitutional Democracy Credits: 3 hrs One course from the following:
- HIST 106-Asian and African Civilizations Credits: 3 hrs
- HIST 109 - World History to 1500 Credits: 3 hrs
- HIST 110 - World History since 1500 Credits: 3 hrs One course from the following:
- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs

One course from the following:

- ECON 100 - Introduction to Economic Problems and Policies Credits: 3 hrs
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs One course from the following:
- ECON 300 - Contemporary Economic Issues Credits: 3 hrs
- ECON 321 - Minority Workers in the Labor Market Credits: 3 hrs
- ECON 328 - Economics of Women Credits: 3 hrs
- ECON 375 - Economic History of the United States Credits: 3 hrs
- ECON 385 - Economic Development Credits: 3 hrs
- WGST 328 - Economics of Women Credits: 3 hrs

One course from the following

- HIST 305 - Native American History Credits: 3 hrs
- HIST 315 - History of Black Americans Credits: 3 hrs
- HIST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs
- HIST 341 - The Middle East, 1798 to the Present Credits: 3 hrs
- HIST 342 - North Africa, 1798 to the Present Credits: 3 hrs
- HIST 348-20th-Century Africa Credits: 3 hrs
- HIST 356 - Latin America: National Period Credits: 3 hrs
- HIST 375 - Modern India Credits: 3 hrs
- WGST 336 - History of Women in the United States and Great Britain, 1800 to the Present Credits: 3 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 11 hours
May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253 - Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 7 hours

May be taken with Phase I courses. Students may not proceed to Phase III until Phase II has been completed.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 0-24 hours
Select a minor from the approved list of minors for elementary and special education-elementary programs. Program Total: 156-180 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 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 integrated science, certification code DI. The certification test covering this field is \#93, "Integrated Science (Elementary)."

General Education Requirements: 40 hours
For the specific requirements refer to the General Education Program
Additional Requirements: 15-17 hours

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs One course from the following:
- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 36 hours
Required Course: 25-26 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- ESSC 311 - Weather and Climate for Elementary Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs
- PHY 311 - Teaching Elementary Physical Science Credits: 3 hrs One course from the following:
- ASTR 105 - Exploration of the Universe Credits: 3 hrs
- ASTR 205 - Principles of Astronomy Credits: 4 hrs

Restricted Electives
Choose ten to eleven hours from the following:

- ASTR 204 - Astronomical Investigations Credits: 1 hr
- ASTR 311 - Astronomy Projects for Elementary Teachers Credits: 3 hrs
- ASTR 377-Special Topics Credits: 1 hrs
- ASTR 378 - Special Topics Credits: 2 hrs
- ASTR 379 - Special Topics Credits: 3 hrs
- ASTR 477 - Special Topics Credits: 1 hrs
- ASTR 478 - Special Topics Credits: 2 hrs
- ASTR 479 - Special Topics Credits: 3 hrs
- ASTR 590 - Special Topics Credits: 1 hr
- ASTR 591 - Special Topics Credits: 2 hrs
- ASTR 592 - Special Topics Credits: 3 hrs
- BIO 140 - Biology of Animals Credits: 4 hrs
- BIO 205 - Field Biology Credits: 4 hrs
- BIO 377 - Special Topics Credits: 1 hr
- BIO 378 - Special Topics Credits: 2 hrs
- BIO 379 - Special Topics Credits: 3 hrs
- BIO 490 - Special Topics Credits: 1 hr
- BIO 491 - Special Topics Credits: 2 hrs
- BIO 492 - Special Topics Credits: 3 hrs

Either

- CHEM 115 - Chemistry and Society Credits: 3 hrs
with
- CHEM 116 - Chemistry and Society Laboratory Credits: 1 hr
or
- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs
with
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 377 - Special Topics Credits: 1 hr
- CHEM 378 - Special Topics Credits: 2 hrs
- CHEM 379-Special Topics Credits: 3 hrs
- CHEM 477 - Special Topics Credits: 1 hr
- CHEM 478 - Special Topics Credits: 2 hrs
- CHEM 479 - Special Topics Credits: 3 hrs
- CHEM 590 - Special Topics Credits: 1 hr
- CHEM 591 - Special Topics Credits: 2 hrs
- CHEM 592 - Special Topics Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 114 - National Parks and Monuments Credits: 2 hrs
- ESSC 208 - Natural Environmental Hazards Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 307 - Essentials of Oceanography for Elementary Teachers Credits: 3 hrs
- ESSC 312 - Plate Tectonics for Elementary Teachers Credits: 3 hrs
- ESSC 315 - Water and the Environment for Elementary Teachers Credits: 3 hrs
- ESSC 377 - Special Topics Credits: 1 hr
- ESSC 378 - Special Topics Credits: 2 hrs
- ESSC 379 - Special Topics Credits: 3 hrs
- ESSC 414 - Teaching Science with Dinosaurs Credits: 3 hrs
- ESSC 477 - Special Topics Credits: 1 hr
- ESSC 478 - Special Topics Credits: 2 hrs
- ESSC 479 - Special Topics Credits: 3 hrs
- ESSC 590-Special Topics Credits: 1 hr
- ESSC 591 - Special Topics Credits: 2 hrs
- ESSC 592 - Special Topics Credits: 3 hrs
- PHY 101 - Physical Science in the Arts Credits: 4 hrs
- PHY 311 - Teaching Elementary Physical Science Credits: 3 hrs
- PHY 312 - Electricity Experiments for Elementary Teachers Credits: 3 hrs
- PHY 377 - Special Topics Credits: 1 hr
- PHY 378 - Special Topics Credits: 2 hrs
- PHY 379 - Special Topics Credits: 3 hrs
- PHY 477 - Special Topics Credits: 1 hr
- PHY 478 - Special Topics Credits: 2 hrs
- PHY 479 - Special Topics Credits: 3 hrs
- PHY 590-Special Topics Credits: 1 hr
- PHY 591 - Special Topics Credits: 2 hrs
- PHY 592 - Special Topics Credits: 3 hrs
- PSCI 110 - The Science of Everyday Life Credits: 4 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase 1: Technology, Diversity and Teaching Environments: 11 hours
May be taken with Phase ll courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253-Technology Education for Children Credits: 3 hrs

Phase 1l: Curriculum and Assessment: 7 hours
May be taken with Phase l courses. Students may not proceed to Phase III until Phase II is completed.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr

Phase 111: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase lll courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 0-24 hours
Select a minor from the approved list of minors for elementary and special education-elementary programs.
Program Total: 150-175 hours

Notes:
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 num bers of 377-379, 477-479 (1-3 hours)
** This course satisfies both a major requirement and a professional studies requirement.


## Elementary Education Program with Three Minors

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Additional Requirements: 24-25 hours

- CHEM 101-Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs

One course from the following:

- PSY 101 - General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 60-72
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

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 11 hours
May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253 - Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 7 hours

May be taken with Phase I courses. Students may not proceed to Phase III until Phase II is complete.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 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.

## Reading Major

Successful completion of this major and the certification test qualifies the student for endorsement in Reading, certification code BT. 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
For specific requirements refer to the General Education Program.
Additional Requirements: 24-26 hours

- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs

One course from the following:

- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

Major Requirements: 30 hours
Required Courses: 24 hours

- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- RDNG 210 - Issues and Trends in Literacy Education Credits: 3 hrs
- RDNG 230 - Word Study in the Reading Program Credits: 3 hrs
- RDNG 240 - Reading and Writing Connections in the Elementary Grades Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs
- RDNG 330 - Reading and the Culturally and Linguistically Diverse Learner Credits: 3 hrs
- RDNG 340 - Literacy Assessment in the Elementary Schools Credits: 3 hrs
- RDNG 400 - Program Development for Struggling Readers Credits: 3 hrs

Restricted Elective Courses 24 hours
One course from the following:

- CTAC 225 - Listening Behavior Credits: 3 hrs
- RDNG 350 - Integrated Language Arts Instruction Credits: 3 hrs One course from the following:
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- RDNG 220 - Instructional Uses of Trade Books Credits: 3 hrs Professional Studies: 59 hours

Pre-Admission phase: The Learner and the Community: 8 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Technology, Diversity and Teaching Environments: 11 hours
May be taken with Phase II courses.

- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs
- TEDU 253-Technology Education for Children Credits: 3 hrs

Phase II: Curriculum and Assessment: 7 hours
May be taken with Phase I courses. Students may not proceed to Phase III until Phase II is completed.

- CURR 304 - Curriculum and Methods: Elementary Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- FETE 301 - Field Experience II:Elementary Credits: 1 hr

Phase III: Methods and Technology: 10 hours
May be taken with Phase IV courses.

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- EDMT 330 - Instructional Applications of Media and Technology Credits: 2 hrs
- MATH 381-Teaching Mathematics in Elementary School Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs

Phase IV: Literacy, Culture and the Arts: 11 hours
May be taken with Phase III courses.

- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs

Phase V: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

University Elective Courses: 0 hours
Program Total: 153-154 hours
Notes:

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

## Minor

# Elementary Education Program with an Early Childhood Education Minor 


#### Abstract

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 EDPS 340 Introduction to Assessment and Evaluation, MUSC 320 Elementary Music Education, TEDU 253 Technology Education for Children and HLED 320 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 or an English as a Second Language minor. The Michigan Test for Teacher Certification (MTTC) for this field are \#82, "Early Child hood," \#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 as signed an adviser.


Required Courses: 17 hours

- ECE 214 - The Developing Child Credits: 3 hrs
- ECE 215 - The Developing Professional Credits: 2 hrs
- ECE 302 - Methods of Integrating Curriculum and Resources in ECE Credits: 3 hrs
- ECE 303 - Implementing the Curriculum in ECE Credits: 2 hrs
- ECE 341 - Assessment of the Young Child Credits: 3 hrs
- EDUC 495 - Student Teaching Credits: 4 hrs

Restricted Elective Courses: 9 hours
Three course from the following:

- ECE 307 - Young Children in Peril: Educational Implications Credits: 3 hrs
- ECE 314 - Infants and Toddlers Credits: 3 hrs
- ECE 318 - Play and Creativity in ECE Credits: 3 hrs
- ECE 379 - Special Topics Credits: 3 hrs

Minor Total: 26 hours
Note:

## Elementary Integrated Science 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 integrated science, certification code DI. The certification test covering this field is \#93, "Integrated Science (Elementary)."

Required Courses: 21-23 hours

- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs

One course from the following:

- ASTR 105 - Exploration of the Universe Credits: 3 hrs
- ASTR 205 - Principles of Astronomy Credits: 4 hrs

Two courses from the following:

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- ESSC 311 - Weather and Climate for Elementary Teachers Credits: 3 hrs
- PHY 311 - Teaching Elementary Physical Science Credits: 3 hrs Restricted Elective Courses: 1-3 hours


## Choose one to three hours from the following:

- ASTR 204 - Astronomical Investigations Credits: 1 hr
- ASTR 377 - Special Topics Credits: 1 hrs
- ASTR 378 - Special Topics Credits: 2 hrs
- ASTR 379-Special Topics Credits: 3 hrs
- ASTR 477 - Special Topics Credits: 1 hrs
- ASTR 478 - Special Topics Credits: 2 hrs
- ASTR 479 - Special Topics Credits: 3 hrs
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- BIO 130 - Biology of Plants Credits: 4 hrs
- BIO 140 - Biology of Animals Credits: 4 hrs
- BIO 205 - Field Biology Credits: 4 hrs
- BIO 215 - Plants and People Credits: 3 hrs
- BIO 377 - Special Topics Credits: 1 hr
- BIO 378 - Special Topics Credits: 2 hrs
- BIO 379 - Special Topics Credits: 3 hrs
- BIO 490 - Special Topics Credits: 1 hr
- BIO 491 - Special Topics Credits: 2 hrs
- BIO 492 - Special Topics Credits: 3 hrs

Either:

- CHEM 115 - Chemistry and Society Credits: 3 hrs
- CHEM 116 - Chemistry and Society Laboratory Credits: 1 hr or
- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs with
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- CHEM 121-General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr
- CHEM 377 - Special Topics Credits: 1 hr
- CHEM 378 - Special Topics Credits: 2 hrs
- CHEM 379-Special Topics Credits: 3 hrs
- CHEM 477-Special Topics Credits: 1 hr
- CHEM 478 - Special Topics Credits: 2 hrs
- CHEM 479 - Special Topics Credits: 3 hrs
- CHEM 590 - Special Topics Credits: 1 hr
- CHEM 591 - Special Topics Credits: 2 hrs
- CHEM 592 - Special Topics Credits: 3 hrs
- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- ESSC 111 - The Earth System Through Time Credits: 4 hrs
- ESSC 114 - National Parks and Monuments Credits: 2 hrs
- ESSC 208 - Natural Environmental Hazards Credits: 3 hrs
- ESSC 229 - Rocks and Minerals Credits: 3 hrs
- ESSC 307 - Essentials of Oceanography for Elementary Teachers Credits: 3 hrs
- ESSC 311 - Weather and Climate for Elementary Teachers Credits: 3 hrs
- ESSC 312 - Plate Tectonics for Elementary Teachers Credits: 3 hrs
- ESSC 315 - Water and the Environment for Elementary Teachers Credits: 3 hrs
- ESSC 377 - Special Topics Credits: 1 hr
- ESSC 378 - Special Topics Credits: 2 hrs
- ESSC 379 - Special Topics Credits: 3 hrs
- ESSC 414 - Teaching Science with Dinosaurs Credits: 3 hrs
- ESSC 477 - Special Topics Credits: 1 hr
- ESSC 478 - Special Topics Credits: 2 hrs
- ESSC 479 - Special Topics Credits: 3 hrs
- ESSC 590 - Special Topics Credits: 1 hr
- ESSC 591 - Special Topics Credits: 2 hrs
- ESSC 592 - Special Topics Credits: 3 hrs
- PHY 101 - Physical Science in the Arts Credits: 4 hrs
- PHY 311 - Teaching Elementary Physical Science Credits: 3 hrs
- PHY 377 - Special Topics Credits: 1 hr
- PHY 378 - Special Topics Credits: 2 hrs
- PHY 379 - Special Topics Credits: 3 hrs
- PHY 477 - Special Topics Credits: 1 hr
- PHY 478 - Special Topics Credits: 2 hrs
- PHY 479 - Special Topics Credits: 3 hrs
- PHY 590 - Special Topics Credits: 1 hr
- PHY 591 - Special Topics Credits: 2 hrs
- PHY 592 - Special Topics Credits: 3 hrs
- PSCI 110 - The Science of Everyday Life Credits: 4 hrs

Minor Total: 24 hours

Notes:
All minors must have at least six hours of course work at the 300-level or above.
*Do not take ESSC 108. For transfer students with ESSC108 credit completed: ESSC 108 automatically substitutes for ESSC 202 and fulfils the requirement. Students cannot use ESSC 108 as an elec tive if they also have ESSC 202.

## 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: 15 hours

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- ENGL 307 - Writing Process for Elementary Teachers Credits: 3 hrs
- LING 201 - An Introduction to Linguistics Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs Restricted Elective Courses: 9 hours

One course from the following:

- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 274 - Intercultural Communication Credits: 3 hrs One course from the following:
- CHL 208 - Multicultural Children's Literature Credits: 3 hrs
- LITR 160 - African American Literature Credits: 3 hrs
- LITR 161 - Native American Literature Credits: 3 hrs One course from the following:
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- CTAR 322 - Theatre for Children Credits: 3 hrs
- CTAR 323 - Improvising and Role-Play Credits: 3 hrs
- CTAR 324 - Oral Interpretation of Children's Literature Credits: 3 hrs Minor Requirements: 24 hours

Note:

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

## Reading Minor (Elementary)

Successful completion of this minor and the certification test qualifies the student for endorsement in reading, certification code BT. Students planning to take the Michigan State Subject Area Test for certification No. 05, "Reading," should take the test when all the course requirements are completed.

Required Courses: 18 hours

- FETE 401 - Field Experience III:Elementary Credits: 1 hr
- RDNG 210 - Issues and Trends in Literacy Education Credits: 3 hrs
- RDNG 230 - Word Study in the Reading Program Credits: 3 hrs
- RDNG 240 - Reading and Writing Connections in the Elementary Grades Credits: 3 hrs
- RDNG 300 - Early Literacy Credits: 3 hrs
- RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades Credits: 3 hrs
- RDNG 340 - Literacy Assessment in the Elementary Schools Credits: 3 hrs

Restricted Elective Course: 3 hours

One course from the following:

- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- RDNG 220 - Instructional Uses of Trade Books Credits: 3 hrs

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:
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) or an English as a Second Language minor.

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 Certifi cation
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
Reading Minor
b. A second minor from list (a) above or from among the following:

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.

Course Requirements:

- Any three-credit history course except HIST100 (3 hrs)
- ART 300 - Art Integration for the Elementary Teacher Credits: 4 hrs
- BIOT 303 - Life Science for Elementary Teachers Credits: 3 hrs
- CHEM 101 - Chemistry for Elementary Teachers Credits: 3 hrs
- CHL 207 - Introduction to Children's Literature Credits: 3 hrs
- CTAC 124 - Fundamentals of Speech Credits: 3 hrs
- ENGL 121 - Composition II: Researching the Public Experience Credits: 3 hrs
- ESSC 202 - Earth Science for Elementary Teachers Credits: 3 hrs
- GEOG 110 - World Regions Credits: 3 hrs
- HLED 320 - Health Education in the Elementary Grades Credits: 2 hrs
- MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers Credits: 3 hrs
- MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers Credits: 3 hrs
- MATH 381 - Teaching Mathematics in Elementary School Credits: 3 hrs
- MUSC 320 - Elementary Music Education Credits: 3 hrs
- PHED 257 - Physical Education for the Classroom Teacher Credits: 2 hrs
- PHY 100 - Physics for Elementary Teachers Credits: 3 hrs
- PLSC 112 - American Government Credits: 3 hrs
- PLSC 113 - American Government Honors Credits: 3 hrs
- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103 - General Psychology Laboratory Credits: 1 hr
- TEDU 253 - Technology Education for Children Credits: 3 hrs

Minor Total: 24 hours
Note:

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

# College of Health and Human Services 

Interim Dean<br>Deb deLaski-Smith<br>206 Everett L. Marshall Building<br>Phone: 734.487.0077<br>Interim Associate Dean<br>Murali Nair<br>206 Everett L. Marshall Building<br>Phone: 734.487.0077<br>Assistant Dean and Coordinator - CHHS Advising<br>Martha Sutton<br>324 Everett L. Marshall Building<br>Phone: 734.487.0918<br>Administrative Assistant<br>Judy Stokes<br>206 Everett L. Marshall Building<br>Phone: 734.487.0077<br>Website: http://www.emich.edu/chhs

## 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
Website: http://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.

# School of Health Promotion and Human Performance Programs 

## School of Health Promotion and Human Performance

Address: 318-319 Porter Building
Phone: 734.487.4388
E-mail: christine.karshin@emich.edu
Web site: www.emich.edu/hphp
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.

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. Exercise Science - Henry Ford Community College
B.S. Exercise Science - Washtenaw Community College

## 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.

School of Health Promotion and Human Performance Programs and Courses

## Major

## Athletic Training

## Accredited by the Commission on Accreditation of Athletic Training Education (CAATE).

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 ATTR 225 - 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 website 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 standards 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 BIOL 105 - 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:
ATTR 225 - Practicum I
SPMD 119 - Orientation to Sports Medicine
SPMD 201/ATTR 201 - Human Anatomy for Sports Medicine
SPMD 202/ATTR 202 - Human Physiology for Sports Medicine
7. Currently enrolled in ATTR 290 - 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 website. 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
For specific requirements refer to the General Education Program.
Additional Requirements: 17-19 hours

- PEGN 210 - Lifetime Wellness and Fitness Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

One course from the following:

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr One course from the following:
- PSY 101-General Psychology Lecture Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr Sports Medicine - Athletic Training: 62 hours
- ATTR 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- ATTR 202 - Human Physiology for Sports Medicine Credits: 3 hrs
- ATTR 219 - Introduction to Athletic Training Credits: 3 hrs
- ATTR 225 - Practicum I Credits: 2 hrs
- ATTR 290 - Practicum II Credits: 2 hrs
- ATTR 295 - Assessment of Lower Body Injuries Credits: 3 hrs
- ATTR 296 - Assessment of Upper Body Injuries Credits: 3 hrs
- ATTR 310 - Emergency Care in Athletic Training Credits: 2 hrs
- ATTR 322 - Therapeutic Exercise for Athletic Trainers Credits: 3 hrs
- ATTR 326 - Practicum III Credits: 1 hr
- ATTR 327 - Practicum IV Credits: 1 hr
- ATTR 390 - Senior Practicum Credits: 2 hrs
- ATTR 419 - Medical Aspects of Athletic Training Credits: 3 hrs
- ATTR 420 - Administrative and Legal Aspects of Athletic Training Credits: 2 hrs
- ATTR 485 - Seminar in Athletic Training Credits: 2 hrs
- ATTR 490 - Internship - Athletic Training Credits: 8 hrs
- DTC 204 - Sports Nutrition Credits: 3 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- SPMD 119 - Orientation to Sports Medicine Credits: 1 hr
- SPMD 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- SPMD 202 - Human Physiology for Sports Medicine Credits: 3 hrs
- SPMD 221 - Therapeutic Modalities for Athletic Trainers Credits: 2 hrs
- SPMD 280 - Pharmacology for Sports Medicine Credits: 2 hrs
- SPMD 300 - Physiology of Exercise Credits: 4 hrs
- SPMD 305 - Kinesiology-Tissue Mechanics Credits: 3 hrs
- SPMD 380 - Behavioral Aspects of Sports Medicine Credits: 3 hrs

University Elective Courses: 3-5 hours
Program Total: 124

Notes:
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.
*t hese courses are reserved for candidate students.

## Curriculum for Sports Medicine

Sports medicine is a comparatively new field of study that integrates sports, medicine, the sciences and other healthrelated areas into a professional curriculum. 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.

## Athletic Training

Exercise Science

## 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 2.80 (transfer GPA evaluated separately).
3. The following courses must be completed with a grade of C or better: BIOL 105 or BIOL 110 (*see note), CHEM 120 or CHEM 121/122 (*see note), PHY 221, SPMD 119, SPMD 201and SPMD 202, (ATTR 201 and 202 or ZOOL 201 and 202 are acceptable substitutions.)
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 main tain a minimum 2.75 GPA . The student will not be allowed to complete the internship experience (SPMD 480) if the GPA falls below 2.75. In addition, a grade of B- or better must be attained in the following courses: PHED 300/SPMD 300, SPMD 325, SPMD 410, SPMD 430, SPMD 431, SPMD 432 SPMD 433 and SPMD 480. If the above are not met, the course(s) in question must be retaken.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Additional Requirements: 2 hours

- PEGN 210 - Lifetime Wellness and Fitness Credits: 2 hrs

Major Requirements: 65-69 hours
Precandidacy Courses: 22 hours

- ATTR 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- ATTR 202 - Human Physiology for Sports Medicine Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SPMD 119 - Orientation to Sports Medicine Credits: 1 hr
- SPMD 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- SPMD 202 - Human Physiology for Sports Medicine Credits: 3 hrs One group from the following:
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
or
- BIO 110 - Introductory Biology I Credits: 5 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122-General Chemistry I Laboratory Credits: 1 hr Required Courses: 17 hours
- DTC 204 - Sports Nutrition Credits: 3 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- SPMD 280 - Pharmacology for Sports Medicine Credits: 2 hrs
- SPMD 300 - Physiology of Exercise Credits: 4 hrs
- SPMD 305 - Kinesiology-Tissue Mechanics Credits: 3 hrs
- SPMD 325 - Practicum in Exercise Science Credits: 2 hrs
- SPMD 380 - Behavioral Aspects of Sports Medicine Credits: 3 hrs

Required Courses (Postcandidacy): 24 hours

- SPMD 410 - Laboratory Techniques in Human Performance Analysis Credits: 4 hrs
- SPMD 430 - Principles of Electrocardiography Credits: 3 hrs
- SPMD 431 - Pathophysiology for Sports Medicine Credits: 3 hrs
- SPMD 432 - Introduction to Exercise Programming Credits: 3 hrs
- SPMD 433 - Principles of Strength and Conditioning Credits: 3 hrs
- SPMD 480 - Internship - Exercise Science Credits: 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 five credit hours are required.

- Any undergraduate or graduate-level SPMD course
- PHED 260 - Motor Development Credits: 2 hrs
- PHED 360 - Motor Learning Credits: 3 hrs

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
Notes:

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, BIOL 110 and CHEM 121/122 should be taken instead of BIOL 105 and CHEM 120. 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 of_ficially 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 secondary 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 specif_ic honor courses. See the department honors adviser for specif_ic 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.

PHED 100 - History and Foundation of Physical Education (2 hrs)
PHED 200 - Anatomy and Physiology ( 5 hrs )
PHED 204 - Kinesiology (Biomechanics of Physical Activity) (3 hrs)
PHED 260 - 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).

PHED 100 - History and Foundation of Physical Education (2 hrs)
HLED 210 - Red Cross First Aid (2 hrs)
PHED 200 - Anatomy and Physiology (5 hrs)
PHED 204 - Kinesiology (Biomechanics of Physical Activity) (3 hrs)
PHED 260 - Motor Development (2 hrs)
PHED 300/SPMD 300 - Physiology of Exercise (4 hrs)
PHED 330 - Adapted Physical Education ( 3 hrs )
PHED 360 - Motor Learning ( 3 hrs )
B. Minimum grade of B in the following Methods of Teaching courses.

PHED 217 - Methods of Teaching Team Sports (3 hrs)
PHED 219 - Methods of Teaching Rhythmic Activity and Fundamental Movement
PHED 315 - Methods of Teaching Conditioning Activities ( 2 hrs )
PHED 317 - 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

For specific requirements refer to the General Education Program.
Additional Requirements: 2 hours

- PEGN 210 - Lifetime Wellness and Fitness Credits: 2 hrs

Major Requirements: 37 hours

- HLED 210 - Standard American Red Cross First Aid Credits: 2 hrs
- PHED 100 - History and Foundations of Physical Education Credits: 2 hrs
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs
- PHED 215 - Methods of Teaching Individual Sports Credits: 3 hrs
- PHED 217 - Methods of Teaching Team Sports Credits: 3 hrs
- PHED 219 - Methods of Teaching Rhythmic Activities, Fundamental Movement and Movement Education Credits: 3 hrs
- PHED 260 - Motor Development Credits: 2 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- PHED 315 - Methods of Teaching Conditioning Activities Credits: 2 hrs
- PHED 317 - Methods of Teaching Elementary Physical Education Credits: 2 hrs
- PHED 330 - Adapted Physical Education Credits: 3 hrs
- PHED 360 - Motor Learning Credits: 3 hrs

Professional Education Courses: 27 hours

Pre-admission: 4 hours

- EDPS 322 - Human Development and Learning Credits: 4 hrs

Phase I: 3 hours

- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: 7 hours

- PHED 370 - Physical Education Applied Technologies Credits: 2 hrs
- PHED 415 - Curriculum and Instruction in Physical Education Credits: 3 hrs
- PHED 470 - Assessment and Evaluation in Physical Education Credits: 2 hrs

Phase III: 13 hours

- EDUC 496 - Student Teaching Credits: 6 hrs
- EDUC 497 - Student Teaching Credits: 6 hrs
- PHED 495 - Senior Seminar Credits: 1 hr

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: 126-130 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 Requirements: 40 hours
For specific requirements refer to the General Education Program.

Additional Requirements: 3 hours

- PSY 101-General Psychology Lecture Credits: 3 hrs

Major Requirements: 39 hours
Required Courses: 39 hours

- HLED 210 - Standard American Red Cross First Aid Credits: 2 hrs
- PHED 100 - History and Foundations of Physical Education Credits: 2 hrs
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs
- PHED 215 - Methods of Teaching Individual Sports Credits: 3 hrs
- PHED 217 - Methods of Teaching Team Sports Credits: 3 hrs
- PHED 219 - Methods of Teaching Rhythmic Activities, Fundamental Movement and Movement Education Credits: 3 hrs
- PHED 260 - Motor Development Credits: 2 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- PHED 315 - Methods of Teaching Conditioning Activities Credits: 2 hrs
- PHED 317 - Methods of Teaching Elementary Physical Education Credits: 2 hrs
- PHED 330 - Adapted Physical Education Credits: 3 hrs
- PHED 360 - Motor Learning Credits: 3 hrs
- PHED 370 - Physical Education Applied Technologies Credits: 2 hrs
- SPMD 300 - Physiology of Exercise Credits: 4 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.

## Sport Management Major

For specific requirements refer to the General Education Program .
Required Core Courses: 36 hours

- LAW 411 - Sports Law Credits: 3 hrs
- SMGT 201 - Foundations of Sport Management Credits: 3 hrs
- SMGT 225 - Social Psychology of Sport Credits: 3 hrs
- SMGT 325 - Sport Facilities Credits: 3 hrs
- SMGT 375 - Sport and Event Planning Credits: 3 hrs
- SMGT 385 - Introduction to Research in Sport Management Credits: 3 hrs
- SMGT 425 - Diversity in Sport Organizations Credits: 3 hrs
- SMGT 445 - Sport Economics and Finance Credits: 3 hrs
- SMGT 493 - Fieldwork in Sport Management I Credits: 3 hrs
- SMGT 495 - Fieldwork in Sport Management Credits: 3 hrs
- SMGT 494 - Fieldwork in Sport Management Credits: 3 hrs
- SMGT 560 - Ethics in Sport Management Credits: 3 hrs

Minor Total: 21-24 hours

Select one of the following minors:
Communication Minor
Entrepreneurship Minor
Nonprofit Administration Minor
General Business Minor - (For nonbusiness majors)
Hotel and Restaurant Management Minor
Management Minor (For nonbusiness majors)
Marketing Minor (For nonbusiness majors)

University Elective Courses: 24-27 hours

Program Total: 124 hours

## Minor

## 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

- HLED 490 - Drug Use and Abuse Credits: 3 hrs
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 421 - Legal Aspects of Sport, Physical Education, and Recreation Credits: 2 hrs
- SPMD 380 - Behavioral Aspects of Sports Medicine Credits: 3 hrs

Restricted Elective Courses: 10 hours
Four to six hours from the following:

- Other Theory Coaching Courses
- ATHL 263 - Theory of Football Credits: 2 hrs
- ATHL 265 - Theory of Baseball Credits: 2 hrs
- ATHL 267 - Theory of Basketball Credits: 2 hrs
- ATHL 268 - Theory of Coaching Swimming Credits: 2 hrs
- ATHL 269 - Theory of Track and Field Credits: 2 hrs

Four to six hours from the following:

- ATHL 261 - Techniques of Officiating I Credits: 2 hrs
- ATHL 262 - Techniques of Officiating II Credits: 2 hrs
- PHED 305 - Practical Concepts of Conditioning Credits: 2 hrs
- PHED 316 - Foundations of Coaching Credits: 2 hrs
- PHED 360 - Motor Learning Credits: 3 hrs
- PHED 389 - Sport and Activity for the Disabled Credits: 1 hr
- PHED 405 - Women in Sports Credits: 3 hrs
- PHED 477 - Special Topics Credits: 1 hr
- PHED 478 - Special Topics Credits: 2 hrs
- PHED 479 - Special Topics Credits: 3 hrs

Minor Total: 23 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 MajorsSpecial Education-Elementary and Special EducationSecondary Teacher Certification

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

- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 260 - Motor Development Credits: 2 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- PHED 330 - Adapted Physical Education Credits: 3 hrs
- PHED 388 - Assessment in Adapted Physical Education Credits: 1 hr
- PHED 389 - Sport and Activity for the Disabled Credits: 1 hr
- PHED 415 - Curriculum and Instruction in Physical Education Credits: 3 hrs
- PHED 434 - Adapted Preschool Physical Education Credits: 1 hr

Four hours from the following:

- PHED 215 - Methods of Teaching Individual Sports Credits: 3 hrs
- PHED 217 - Methods of Teaching Team Sports Credits: 3 hrs
- PHED 315 - Methods of Teaching Conditioning Activities Credits: 2 hrs
- PHED 313 - Methods of Teaching Gymnastics Credits: 2 hrs
- PHED 319 - Methods of Teaching Aquatics Credits: 2 hrs
- PHED 415 - Curriculum and Instruction in Physical Education Credits: 3 hrs
- PHED 490 - Field Experience in Adapted Physical Education Credits: 4 hrs

Minor Total: 24 hours
Notes:
All minors must have at least six hours of course work at the 300-level or above.

* This course is requi red 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.

## Physical Education Minor-Secondary, K-12 and Special Education-Secondary Teacher Certification


#### Abstract

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

- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PHED 204 - Kinesiology (Biomechanics of Physical Activity) Credits: 3 hrs
- PHED 260 - Motor Development Credits: 2 hrs
- PHED 300 - Physiology of Exercise Credits: 4 hrs
- PHED 315 - Methods of Teaching Conditioning Activities Credits: 2 hrs
- PHED 330 - Adapted Physical Education Credits: 3 hrs
- PHED 415 - Curriculum and Instruction in Physical Education Credits: 3 hrs One course from the following:
- PHED 215 - Methods of Teaching Individual Sports Credits: 3 hrs
- PHED 217 - Methods of Teaching Team Sports Credits: 3 hrs

Minor Total: 25 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, and to assist in solving community problems, are 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.

Objectives 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

- RECR 100 - Introduction to Recreation and Leisure Credits: 3 hrs
- RECR 260 - Recreation Leadership Credits: 3 hrs
- RECR 360 - Recreation Program Planning Credits: 3 hrs

Restricted Elective Courses: 15 hours

- RECR 271 - Park Maintenance Credits: 3 hrs
- RECR 280 - Camping Credits: 2 hrs
- RECR 290 - Practical Research in Recreation Credits: 3 hrs
- RECR 370 - Leisure Facility Design and Management Credits: 3 hrs
- RECR 390 - Outdoor Recreation Credits: 3 hrs
- RECR 450 - Park Planning and Design Credits: 3 hrs
- RECR 460 - Park and Recreation Administration Credits: 3 hrs
- RECR 465 - Park and Recreation Management Credits: 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

- HLED 130 - Healthy Sexuality Credits: 3 hrs
- HLED 210 - Standard American Red Cross First Aid Credits: 2 hrs
- HLED 270 - Principles of Health Education Credits: 3 hrs
- HLED 305 - Current Health Issues I Credits: 3 hrs
- HLED 315 - Current Health Issues II Credits: 3 hrs
- HLED 490 - Drug Use and Abuse Credits: 3 hrs

Restricted Elective Courses: 3 hours
Students will choose three credit hours of health-related coursework in consultation with their health minor adviser. Minor Total: 20 hours

Note:

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

## 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

- HLED 270 - Principles of Health Education Credits: 3 hrs
- HLED 305 - Current Health Issues I Credits: 3 hrs
- HLED 315 - Current Health Issues II Credits: 3 hrs
- HLED 325 - Instructional Skills and Strategies for Health Education Credits: 3 hrs
- HLED 355 - Health Education Program Planning Credits: 3 hrs
- HLED 450 - Health Education Assessment Credits: 3 hrs
- HLED 460 - Concepts in Sexuality Education Credits: 3 hrs
- HLED 490 - Drug Use and Abuse Credits: 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 Programs

## School of Health Sciences

Address: 313 Marshall Building
Phone: 734.487.4096
E-mail: chhsadvising@emich.edu or efrancis@emich.edu
Web site: www.emich.edu/hs/
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 occupationaltherapy, 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

School of Health Sciences Programs and Courses

## Certification

## 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, then 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<br>Garden City Osteopathic Hospital, Garden City, MI<br>Gift of Life<br>Health Alliance Plan of Michigan, Detroit<br>Henry County Hospital, Napolean, Ohio<br>Henry Ford Hospital, Detroit<br>Henry Ford Village<br>Hospice of Washtenaw, Ann Arbor<br>Laurel Home Health Care Centers, Ypsilanti<br>M-Care, Ann Arbor<br>McAuley-McPhearson Health Care, Howell, MI<br>Michigan Blue Shield and Michigan Blue Cross, Detroit<br>Michigan Insurance Bureau, Lansing, MI<br>Michigan Department of Corrections<br>Michigan Department of Mental Health<br>Michigan Department of Public Health<br>Munson Memorial Hospital, Traverse City<br>Milan Federal Correctional Institution, Milan, MI<br>Munson Memorial Hospital, Traverse City, MI<br>Oakland County Department of Public Health<br>Snow Health Center<br>St. John Hospital, Detroit<br>St. Joseph Mercy Hospital, Ann Arbor<br>St. Mary's Hospital, Saginaw, MI<br>Seaway Hospital, Trenton, MI<br>Springfield Hospital, Springfield, Vt.<br>Traverse City Osteopathic Hospital, Traverse City, MI<br>Trinity Health Care<br>University of Michigan Hospitals, Ann Arbor<br>Visiting Nurse Association of Huron Valley, Ann Arbor<br>Washtenaw County Community Mental Health, Ann Arbor<br>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 heath 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
For specific requirements refer to the General Education Program .

Additional Requirements: 13-16 hours

- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs One course from the following:
- MATH 118 - Linear Models and Probability Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs If student has taken MATH 118, choose one course from the following:
- DS 265 - Business Statistics I Credits: 3 hrs
- ECON 310 - Economic Statistics Credits: 3 hrs
- PSY 205 - Quantitative Methods in Psychology Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs Major Requirements: 55 hours

Required Courses in Health Administration: 45 hours

- HLAD 305 - The U.S. Health Care System Credits: 3 hrs
- HLAD 308 - Ethical Dimensions in Health Care Delivery Credits: 3 hrs
- HLAD 310 - Administration of Health Care Organizations Credits: 2 hrs
- HLAD 311 - Management of Health Services Credits: 3 hrs
- HLAD 312 - Health Personnel Management and Development Credits: 3 hrs
- HLAD 315 - Research Methods and Data Analysis in Health Sciences Credits: 3 hrs
- HLAD 416 - Health Planning Credits: 3 hrs
- HLAD 417 - Health Regulation Credits: 3 hrs
- HLAD 418 - Principles of Healthcare Finance Management Credits: 3 hrs
- HLAD 420 - Health Insurance and Reimbursement Credits: 3 hrs
- HLAD 425 - Decision Making for Health Administrators Credits: 3 hrs
- HLAD 480 - Internship Seminar in Health Administration Credits: 2 hrs
- HLAD 488 - Internship Credits: 6 hrs

Required Courses in Associated Health Profession: 4 hours

- AHPR 200 - Medical Terminology Credits: 1 hr One course from the following:
- HLAD 401 - Legal Issues in Health Care Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs

Required Courses in Business Administration and Liberal Arts: 6 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ECON 436 - Health Economics Credits: 3 hrs

Minor Requirements: 0 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
For specific requirements refer to the General Education Program .
Major Requirements: 30 hours

- Two hours of applicable transfer work from an associates degree.
- AHPR 200 - Medical Terminology Credits: 1 hr
- HLAD 305 - The U.S. Health Care System Credits: 3 hrs
- HLAD 308 - Ethical Dimensions in Health Care Delivery Credits: 3 hrs
- HLAD 310-Administration of Health Care Organizations Credits: 2 hrs
- HLAD 311 - Management of Health Services Credits: 3 hrs
- HLAD 315 - Research Methods and Data Analysis in Health Sciences Credits: 3 hrs
- HLAD 401 - Legal Issues in Health Care Credits: 3 hrs
- HLAD 420 - Health Insurance and Reimbursement Credits: 3 hrs
- HLAD 425 - Decision Making for Health Administrators Credits: 3 hrs One course from the following:
- HLAD 416 - Health Planning Credits: 3 hrs
- HLAD 417 - Health Regulation Credits: 3 hrs

Minor Requirements: 21 hours
Minor in management for non-business majors is required.
University Elective Courses: 33 hours

Note:

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

## Major

## 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:

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National Accrediting Agency
for Clinical Laboratory Sciences
8410 West Bryn Mawr Ave.
Suite 670
Chicago, IL 60631
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## 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/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
Mercy Memorial Hospital, Monroe
Garden City Hospital, Garden City
VA Hospital, Ann Arbor

Henry Ford Hospital, Detroit for Cytogentics
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 offi ce 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:
6. 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.
7. 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
Hurley Hospital, Flint

## 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

## Concentration 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.

## Concentration 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.

General Education: 40 hours

For specific requirements refer to the General Education Program .
Additional Requirements: 20 hours

- AHPR 200 - Medical Terminology Credits: 1 hr
- BIO 301 - Genetics Credits: 3 hrs
- BIO 305-Cell and Molecular Biology Credits: 3 hrs
- CHEM 123 - General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 271 - Organic Chemistry Laboratory Credits: 1 hr
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs

Major Requirements: 60 hours

- CLSC 200 - Clinical Laboratory Techniques Credits: 3 hrs
- CLSC 201 - Phlebotomy Techniques Credits: 2 hrs
- CLSC 300 - Molecular Diagnostics Credits: 3 hrs
- CLSC 301 - Molecular Diagnostics Laboratory Credits: 1 hr
- CLSC 307 - Urinalysis, Body Fluids and Hemostasis Credits: 3 hrs
- CLSC 332 - Clinical Microbiology I Credits: 3 hrs
- CLSC 335 - Clinical Immunology Credits: 3 hrs
- CLSC 336 - Clinical Immunology Laboratory Credits: 1 hr
- CLSC 401 - Laboratory Management/ Education Credits: 3 hrs
- CLSC 402 - Clinical Chemistry Credits: 3 hrs
- CLSC 403 - Clinical Chemistry Laboratory Credits: 1 hrs
- CLSC 407 - Hematology Credits: 3 hrs
- CLSC 408 - Clinical Hematology Laboratory Credits: 1 hr
- CLSC 432 - Clinical Microbiology Credits: 3 hrs
- CLSC 433 - Clinical Microbiology Laboratory Credits: 2 hrs
- CLSC 434 - Advanced Immunohematology Credits: 3 hrs
- CLSC 450 - Hematology/Coagulation Practicum Credits: 4 hrs
- CLSC 452 - Clinical Immunology/ Immunohematology Practicum Credits: 4 hrs
- CLSC 454 - Clinical Chemistry Practicum Credits: 4 hrs
- CLSC 456 - Clinical Microbiology Practicum Credits: 4 hrs
- CLSC 459- Clinical Microbiology Practicum II Credits: 3 hrs

Minor Total: 0 hours
No minor is required
University Elective Courses: 4 hours

## Combined Bachelor's-Master's Degree in Occupational Therapy

There are two different means of entering the occupational therapy program. A competitive application process is utilized to select students. Please be aware that admission to Eastern Michigan University as well as successful completion of undergraduate courses does not guarantee entry into the program. A minimum GPA of 2.75 is required to be considered for admission.

## The Combined Bachelor-Master's Degree in Occupational Therapy:

The $3+2$ track is designed for undergraduate students and combines three years of undergraduate general education classes with two years of graduate coursework in occupational therapy. This track culminates in a Bachelors of Science degree and a Masters of Occupational Therapy (MOT) degree. Undergraduates accepted into the program must have successfully completed 90 undergraduate credits by August 1 in order to begin the program in the Fall of the year in which they applied.

## The Masters of Occupational Therapy Degree:

The MOT track is designed for individuals who have already completed an undergraduate degree in a field other than occupational therapy. This track requires the student to complete two years of graduate coursework in occupational therapy and culminates with a Masters of Occupational Therapy (MOT) degree.

## Required Prerequisite Courses:

In order to be considered for admission to the occupational therapy program, a student must complete the following prerequisite courses with a grade of B- or better. If you have previously taken these courses at another university please note that all prerequisite substitutions must be pre-approved before the submission of your portfolio. Submission of your portfolio without prior approval will result in your application being denied.

Anatomy \& Physiology
**ZOOL 201 Human Anatomy and Physiology I (3 hrs)
ZOOL 202 Human Anatomy and Physiology II (3 hrs)

## Neuroanatomy

ZOOL 316 Neuroanatomy (4 hrs)

Medical Terminology
**AHPR 200 Medical Terminology (1 hr)

## Statistics

**All of the following EMU courses meet this requirement: SOCL 250, EDPS 621, EDPS 651, Math 170, $360,370,571,573,574$, or PSY 205

## Human Growth and Development

**IHHS 260 Aging to Infancy: A life course retrospective (3 hrs) or
**EDPS 325 Life Span Human Growth and Development (4 hrs)
**These four courses must be completed by the application deadline. The remaining two must be completed by August 1st of the year you intend to begin the program.

## Application Process:

The competitive admission process consists of a review of portfolios by a Screening Committee comprised of faculty and staff in the Occupational Therapy Program. Portfolios are accepted once a year on January 5th for students interested in beginning the program in the Fall semester of that year. No late submissions are accepted. The portfolio must include the following items: official college transcripts from all schools attended, results of the GRE General Test, one academic reference, documentation of 100 hours of completed volunteer service with two references from these experiences, and an exemplar of reflective writing.

## International Students:

International students must contact the International Admissions office at (734)487-0205. They will assist in the evaluation of transcripts and determine your cumulative GPA. International students must provide a copy of the EMU Graduate School approved TOEFL score in their application portfolio.

## Fieldwork:

A minimum of six months of full time supervised fieldwork is required at the conclusion of the academic program. Filed placements are recommended by faculty and arranged through the occupational therapy program.

## Scholarships:

The Occupational Therapy program offers a number of scholarships to students two are admitted to the program. For more information contact the OT program at 734-487-4096. There are also a number of University scholarships available to students. Contact the office of Financial Aid for information.

## Accreditation:

The EMU OT Program is accredited by the American Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. Telephone number: C/O AOTA (301) 652-AOTA. Upon completion of the academic and fieldwork portions of the program, graduates are eligible to sit for the national certification exam for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an occupational therapist, registered (OTR). All students admitted to the MOT program who successfully complete the academic program are required to take the NBCOT Certification exam in order to practice occupational therapy. Character background information is reviewed by NBCOT to determine a person's ability to sit for the examination. If you have any previous circumstances, such as a felony charge or conviction, an encumbrance of professional license or negligence, malpractice or willful intentional misconduct, we strongly recommend that you contact Paul Grace at NBCOT for a free, confidential early determination of your ability to sit for the national exam.
Contact information:
Paul Grace, MS, CAE
Executive Director, NBCOT
Phone: (301)990-7979 ext. 3130
paul.grace@nbcot.org

## Dietetics Major

The Coordinated Program in Dietetics (CPD) is a specialized educational program, accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, which 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.

American Dietetics Association
120 South Riverside Plaza
Suite 2000
Chicago, IL 60606
This is a second admissions program with both online and on-campus delivery methods. Through the online delivery method, this program is available to students who do not live near Eastern Michigan University's campus ( $>100$ miles). Both programs begin in the fall of the junior year. Please be aware that admission to the University is not a guarantee of entry into the dietetics program. Important information and the application for both the online and on-
campus program can be found at the Continuing Education web site (www.emuonline.edu). In addition, students are encouraged to contact the College of Health and Human Services Advising Center at chhsadvising@emich.edu or 734.487.0918 for additional information. The application deadline for both the online and on-campus program is January 15 for entrance into the professional phase of the program the following fall semester.

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: BIO326 Human Physiology and AHPR200 Medical Terminology or SPMD269 Anatomy and Physiology for Dietetics; BIO328 Introductory Microbiology; 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 or EDPS325 Life Span Human Growth and Development; PSY101 General Psychology; and SOCL250 Quantitative Applications in Sociology.
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, a personal statement and answers to given questions are considered in this screening procedure.

Once the student has been accepted into the CPD, it is assumed that he/she will maintain his/her academic status.

- If the student receives a grade of $\mathrm{C}(\mathrm{C}+, \mathrm{C}, \mathrm{C}$ ) in any two required courses during the professional phase of the program he/she will be put on academic probation within the program. The student will be required to meet with the Faculty of Record and the Program Director. At this time conditions of the academic probation will be determined and a plan of action will be put into place.
- If the student receives another $\mathrm{C}(\mathrm{C}+, \mathrm{C}, \mathrm{C}-)$ in a required course during the professional phase of the program, a committee review and disciplinary action will be taken including potential dismissal from the program.
- A grade of D ( $\mathrm{D}+, \mathrm{D}, \mathrm{D}-$ ) in any required course during the professional phase of the program will be referred for a committee review and disciplinary action will be taken including potential dismissal from the program.
- A grade of E in any required course during the professional phase of the program will result in automatic dismissal from the CPD.
- If a grade of $\mathrm{D}(\mathrm{D}+, \mathrm{D}, \mathrm{D}-)$ or E is received in any course during the final semester of the professional phase of the program, the circumstances will be committee reviewed and the student potentially will not receive a verification statement to sit for the Registration Examination for Dietitians. The formation of the review committee will be determined at the time of need by the program director.
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 the 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

Upon successful completion of the coordinated dietetics curriculum, students will be eligible to sit for the Registration Examination for Dietitians. This will provide the recognized credential of Registered Dietitian through the Commission on Dietetics Registration of the American Dietetic Association.

An active articulation agreement exists between this program and Owens Community College.
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Prerequisites of Professional Phase:
Prerequisites are to be taken prior to acceptance into the professional phase of the program.

Students are also required to take introductory courses in the following subjects:

- Biology
- Chemistry with a Lab
- Mathematics
- AHPR 200 - Medical Terminology Credits: 1 hr
- BIO 326 - Human Physiology Credits: 3 hrs
- BIO 328 - Introductory Microbiology Credits: 3 hrs
- CHEM 270 - Survey of Organic Chemistry Credits: 4 hrs
- CHEM 351 - Foundations of Biochemistry Credits: 4 hrs
- DTC 108 - Careers in Nutrition and Dietetics Credits: 2 hrs
- DTC 202 - Principles of Human Nutrition Credits: 3 hrs
- DTC 251 - Experimental Foods Credits: 4 hrs
- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
or
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs

Major Requirements: 56 hours

- DTC 302 - Nutrient Metabolism: Macronutrients Credits: 3 hrs
- DTC 330 - Nutrition Therapy I Credits: 3 hrs
- DTC 331 - Nutrition Therapy I Experience Credits: 2 hrs
- DTC 350 - Food Systems Management I Credits: 3 hrs
- DTC 351 - Food Systems Management I Experience Credits: 2 hrs
- DTC 358 - Food and Culture Credits: 3 hrs
- DTC 370 - Nutrition Therapy II Credits: 3 hrs
- DTC 371 - Nutrition Therapy II Experience Credits: 4 hrs
- DTC 372 - Nutrition of the Life Cycle Credits: 3 hrs
- DTC 375 - Complementary and Alternative Medicine Credits: 3 hrs
- DTC 422 - Nutrient Metabolism: Micronutrients Credits: 3 hrs
- DTC 430 - Nutrition Therapy III Credits: 3 hrs
- DTC 431 - Nutrition Therapy III Experience Credits: 4 hrs
- DTC 435 - Seminar in Dietetics Credits: 2 hrs
- DTC 450 - Food Systems Management II Credits: 2 hrs
- DTC 451 - Food Systems Management II Experience Credits: 4 hrs
- DTC 459 - Development of Entrepreneurial Dietitian Credits: 3 hrs
- DTC 470 - Nutrition Therapy IV Credits: 2 hr
- DTC 471 - Nutrition Therapy IV Experience Credits: 4 hrs

Minor Requirements: 0 hours
No minor is required:
Program Total: 137 hours

Notes:
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 upperlevel 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)

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MATH571 Mathematical Statistics I: Probability Theory (3 hrs)
MATH574 Applied Statistics (3 hrs)
SOCL250 Quantitative Applications in Sociology (3 hrs)
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## 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 specifi c 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 Requirements: 40 hours
For specific requirements refer to the General Education Program.
Additional Requirements: 27-29 hours

- AHPR 200 - Medical Terminology Credits: 1 hr
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs
- BIO 251 - Human Anatomy and Physiology I Credits: 3 hrs
- BIO 252 - Human Anatomy and Physiology II Credits: 3 hrs
- EDPS 621 - Statistical Applications in Educational Research Credits: 2 hrs
- EDPS 651 - Inferential Statistics Credits: 2 hrs
- SOCL 250 - Quantitative Applications in Sociology Credits: 3 hrs

One course from the following:

- MATH 360 - Statistical Methods Credits: 3 hrs
- MATH 370 - Probability and Statistics I Credits: 4 hrs
- MATH 571 - Mathematical Statistics I: Probability Theory Credits: 3 hrs
- MATH 574 - Applied Statistics Credits: 3 hrs

One course from the following:

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs Major Requirements: 66 hours
- HLAD 510 - Medical Care Organization Credits: 3 hrs
- OCTH 412 - Models of Practice Credits: 3 hrs
- OCTH 419 - Programming I Credits: 6 hrs
- OCTH 420 - Level I Fieldwork I Credits: 3 hrs
- OCTH 495 - Neurological Foundations of Human Occupation Credits: 3 hrs
- OCTH 500 - Philosophy of Occupational Therapy Credits: 3 hrs
- OCTH 502 - Theory and Analysis of Occupation Credits: 3 hrs
- OCTH 516 - Level I Community Fieldwork II Credits: 3 hrs
- OCTH 517 - Level I Community Fieldwork II Credits: 3 hours
- OCTH 519 - Programming II Credits: 6 hrs
- OCTH 540-Research Methods I Credits: 3 hrs
- OCTH 588 - Fieldwork Level II: Clinical Skills Credits: 6 hrs
- OCTH 589 - Fieldwork Level II: Clinical Skills Credits: 6 hrs
- OCTH 600 - Supervision and Professional Roles Credits: 3 hrs
- OCTH 619 - Programming III Credits: 6 hrs
- OCTH 686 - Culminating Project I Credits: 3 hrs
- OCTH 687-Culminating Project II Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 21 hours
OCTH 100- Orientation to Occupational Therapy, OCTH 201-Exploring Occupational Performance in the Community and OCTH 350-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 rec re ation experience before taking a fulltime 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 Th erapeutic 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

For specific requirements refer to the General Education Program .
Recommended Courses: 11 hours

- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAR 222 - Drama and Play in the Human Experience Credits: 3 hrs
- IHHS 226 - Computers for Health and Human Services Credits: 3 hrs
- PEGN 210 - Lifetime Wellness and Fitness Credits: 2 hrs

Major Requirements: 61-63 hours

- AHPR 200 - Medical Terminology Credits: 1 hr
- COUN 450 - An Introduction: Counseling Concepts and Skills Credits: 3 hrs
- HLAD 305 - The U.S. Health Care System Credits: 3 hrs
- PHED 200 - Anatomy and Physiology Credits: 5 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SPMD 280 - Pharmacology for Sports Medicine Credits: 2 hrs
- THRC 100 - Orientation to Therapeutic Recreation Credits: 3 hrs
- THRC 200 - Recreation for Persons with Disabilities Credits: 3 hrs
- THRC 250 - Fieldwork in Recreation Therapeutic Recreation Credits: 1 hr
- THRC 251 - Fieldwork in Recreation Therapeutic Recreation Credits: 1 hr
- THRC 252 - Fieldwork in Recreation Therapeutic Recreation Credits: 1 hr
- THRC 290 - Quality Improvement:Research Methods in Health Care Credits: 3 hrs
- THRC 300 - Principles of Therapeutic Recreation Credits: 3 hrs
- THRC 320 - Leisure Education Credits: 3 hrs
- THRC 340 - Therapeutic Recreation Processes I Credits: 3 hrs
- THRC 360 - Therapeutic Recreation Program Planning Credits: 3 hrs
- THRC 400 - Therapeutic Recreation Process II Credits: 3 hrs
- THRC 430 - Issues in Therapeutic Recreation Credits: 3 hrs
- THRC 449 - Therapeutic Recreation Practicum Credits: 8 hrs

Choose one from the following:

- THRC 180 - Activity Analysis and Adaption Credits: 2 hrs
- THRC 481 - Adapted Aquatics Credits: 2 hrs

Choose one from the following:

- THRC 310 - Leisure and Aging Credits: 3 hrs
- THRC 330 - Therapeutic Recreation: Substance Abuse Credits: 3 hrs

Choose one from the following:

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 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.

## Minor

## Health Administration Minor

Minor Requirements: 14-15 hours

- AHPR 200 - Medical Terminology Credits: 1 hr
- HLAD 310 - Administration of Health Care Organizations Credits: 2 hrs
- HLAD 311 - Management of Health Services Credits: 3 hrs
- HLAD 401 - Legal Issues in Health Care Credits: 3 hrs
- HLAD 420 - Health Insurance and Reimbursement Credits: 3 hrs

One course from the following:

- HLAD 300 - Health Care Issues Credits: 2 hrs
- HLAD 305 - The U.S. Health Care System Credits: 3 hrs

Elective Courses: 6 hours

Two courses from the following:

- AAS 351 - The Social Context of African American Health Credits: 3 hrs
- HLAD 250 - Introduction to Public Health Credits: 3 hrs
- HLAD 308 - Ethical Dimensions in Health Care Delivery Credits: 3 hrs
- HLAD 315 - Research Methods and Data Analysis in Health Sciences Credits: 3 hrs
- HLAD 416 - Health Planning Credits: 3 hrs
- HLAD 417 - Health Regulation Credits: 3 hrs
- HLAD 421 - Managed Care Credits: 3 hrs
- HLAD 425 - Decision Making for Health Administrators Credits: 3 hrs
- HLAD 460 - Long-Term Care Administration Credits: 3 hrs
- HLAD 479 - Special Topics Credits: 3 hrs
- SWRK 431 - Substance Abuse Credits: 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 Area Courses: 15 hours

- DTC 358 - Food and Culture Credits: 3 hrs
- DTC 372 - Nutrition of the Life Cycle Credits: 3 hrs
- DTC 375 - Complementary and Alternative Medicine Credits: 3 hrs
- DTC 430 - Nutrition Therapy III Credits: 3 hrs

One course from the following:

- DTC 202 - Principles of Human Nutrition Credits: 3 hrs
- DTC 203 - Nutrition for Health Professionals Credits: 3 hrs
- DTC 204 - Sports Nutrition Credits: 3 hrs

Restricted Courses: 5 hours
Five hours from the following:

- HLED 120 - Healthful Living ( 3 hrs )
- AHPR 200 - Medical Terminology Credits: 1 hr
- BIO 259 - Biology of Aging Credits: 2 hrs
- DTC 108 - Careers in Nutrition and Dietetics Credits: 2 hrs
- DTC 155 - Fundamentals of Healthy Lifestyles Credits: 2 hrs
- DTC 251 - Experimental Foods Credits: 4 hrs
- DTC 302 - Nutrient Metabolism: Macronutrients Credits: 3 hrs
- HLAD 300 - Health Care Issues Credits: 2 hrs
- HLAD 305 - The U.S. Health Care System Credits: 3 hrs
- HLAD 308 - Ethical Dimensions in Health Care Delivery Credits: 3 hrs
- HLED 302 - From Host to Host: The Communicable Diseases Credits: 1 hr
- HLED 402 - Selecting Health Products and Services Credits: 3 hrs
- HLED 420 - Health and Aging Credits: 3 hrs
- HLED 490 - Drug Use and Abuse Credits: 3 hrs


## Error in Printed Catalog

- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs
- PHED 209 - Bio-Fitness Credits: 2 hrs
- PHIL 223 - Medical Ethics Credits: 3 hrs
- THRC 310 - Leisure and Aging Credits: 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 Programs

## School of Nursing

Address: 311 Marshall Building
Phone: 734.487.2310
E-mail: chhs_nursing@emich.edu
Web site: www.emich.edu/nursing

## 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 hrs )
SPMD201/ATTR201 Human Anatomy for Sports Medicine (3 hrs)
SPMD202/ATTR202 Human Physiology for Sports Medicine (3 hrs)
or
BIO251 Human Anatomy and Physiology I (3 hrs)
BIO252 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 ehics 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 - Jackson Community College
B.S.N. Nursing Completion - Lansing Community College
B.S.N. Nursing Completion - Monroe County Community College
B.S.N. Nursing Completion - Oakland 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

School of Nursing Programs and Courses

## Major

## 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
For specific requirements refer to the General Education Program.

Additional Requirements: 25-26 hours

- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- DTC 203 - Nutrition for Health Professionals Credits: 3 hrs
- PSY 103-General Psychology Laboratory Credits: 1 hr

One course from the following:

- CLSC 432 - Clinical Microbiology Credits: 3 hrs
- BIO 328 - Introductory Microbiology Credits: 3 hrs

One course from the following:

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs One of the following two course sequences ( 6 hrs )
- SPMD 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- SPMD 202 - Human Physiology for Sports Medicine Credits: 3 hrs or
- BIO 251 - Human Anatomy and Physiology I Credits: 3 hrs
- BIO 252 - Human Anatomy and Physiology II Credits: 3 hrs One course from the following:
- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs Major Requirements: 60 hours
- NURS 208 - The Art and Science of Nursing I Credits: 2 hrs
- NURS 209 - The Art and Science of Nursing I Laboratory Credits: 3 hrs
- NURS 220 - Health Assessment Credits: 2 hrs
- NURS 250 - The Art and Science of Nursing II Credits: 2 hrs
- NURS 251 - The Art and Science of Nursing II Laboratory Credits: 3 hrs
- NURS 260 - Pathophysiology Credits: 4 hrs
- NURS 270 - Pharmacology Credits: 3 hrs
- NURS 275 - Essentials of Professional Nursing Practice I Credits: 3 hrs
- NURS 304 - Nursing Care of Childbearing Families Credits: 2 hrs
- NURS 305 - Nursing Care of Childbearing Families Laboratory Credits: 3 hrs
- NURS 306 - Child/Family Health Nursing Credits: 2 hrs
- NURS 307 - Child Family Health Nursing Laboratory Credits: 3 hrs
- NURS 330 - Adult Health Nursing I Credits: 2 hrs
- NURS 331 - Adult Health Nursing I Laboratory Credits: 3 hrs
- NURS 350 - Psychiatric/Mental Health Nursing Credits: 2 hrs
- NURS 351 - Psychiatric/Mental Health Nursing Laboratory Credits: 3 hrs
- NURS 372 - Nursing Research Credits: 2 hrs
- NURS 375 - Essentials of Professional Nursing Practice II Credits: 3 hrs
- NURS 404 - Adult Health Nursing II Credits: 2 hrs
- NURS 405 - Adult Health Nursing II Laboratory Credits: 3 hrs
- NURS 450 - Community Health Nursing Credits: 2 hrs
- NURS 451 - Community Health Nursing Practice Credits: 3 hrs
- NURS 475 - Essentials of Professional Nursing Practice III Credits: 3 hrs

Program Total: 125-126 hours

Notes:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
A program fee of $\$ 66$ per credit hour is assessed on each nursing course with 300 or above designation.
*Only available to students who have taken SPMD 201 and SPMD202.

## 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<br>B.S.N. Nursing Completion - Lansing Community College<br>B.S.N. Nursing Completion - Monroe County Community College<br>B.S.N. Nursing Completion - Schoolcraft College<br>B.S.N. Nursing Completion - Washtenaw Community College<br>B.S.N. Nursing Completion - Wayne County Community College District<br>See Transfer Information for more details.<br>General Education Requirements: 40 hours<br>For specific requirements refer to the General Education Program.

Additional Requirements: 25-26 hours

- CHEM 120 - Fundamentals of Organic and Biochemistry Credits: 4 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs

One course from the following:

- BIO 328 - Introductory Microbiology Credits: 3 hrs
- CLSC 432 - Clinical Microbiology Credits: 3 hrs

One course from the following:

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs

One course from the following:

- DTC 202 - Principles of Human Nutrition Credits: 3 hrs
- DTC 203 - Nutrition for Health Professionals Credits: 3 hrs
- DTC 204 - Sports Nutrition Credits: 3 hrs One of the following two course sequences ( 6 hrs )
- SPMD 201 - Human Anatomy for Sports Medicine Credits: 3 hrs
- SPMD 202 - Human Physiology for Sports Medicine Credits: 3 hrs or
- BIO 251 - Human Anatomy and Physiology I Credits: 3 hrs
- BIO 252 - Human Anatomy and Physiology II Credits: 3 hrs One course from the following:
- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs

Major Requirements: 60 hours
Required Courses: 55 hours

- NLN Exams or State of Michigan RN license (30 hrs)
- NURS 220 - Health Assessment Credits: 2 hrs
- NURS 260 - Pathophysiology Credits: 4 hrs
- NURS 270 - Pharmacology Credits: 3 hrs
- NURS 275 - Essentials of Professional Nursing Practice I Credits: 3 hrs
- NURS 372 - Nursing Research Credits: 2 hrs
- NURS 375 - Essentials of Professional Nursing Practice II Credits: 3 hrs
- NURS 450 - Community Health Nursing Credits: 2 hrs
- NURS 451 - Community Health Nursing Practice Credits: 3 hrs
- NURS 475 - Essentials of Professional Nursing Practice III Credits: 3 hrs

Restrictive Elective Courses: 5 hours

- Five hours in nursing

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

A program fee of $\$ 66$ per credit hour is assessed on each nursing course with a 300 or above designation.

## 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.

Please also see the Nursing Major - B.S.N. Degree.

## School of Social Work Programs

## School of Social Work

Address: 317 Marshall
Phone: 734.487.0393
E-mail: bsw_program@emich.edu
Web site: www.emich.edu/sw

The Eastern Michigan University Social Work Program is committed to the empowerment of poor, oppressed, vulnerable and underserved 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 Bachelor of Social Work program has 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. Fulltext versions of articulation agreements are available at www.emich.edu/public/aa/ccr.

B.S. Social Work - Jackson Community College<br>B.S. Social Work - Monroe County Community College<br>B.S. Social Work - Oakland Community College<br>B.S. Social Work - Schoolcraft College<br>B.S. Social Work - Washtenaw Community College<br>B.S. Social Work - Wayne County Community College

## 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, SWRK200, 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 .
3. At least a C in each required social work class with SWRK prefix before and during field placement.
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 BSW Field Coordinator. Please check with BSW Field Coordinator on deadline dates for field applications.
6. Students must take field placement during consecutive semesters either fall/winter or winter/spring-summer.
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 who receive a grade of E in either semester of field placement must obtain special School of Social Work 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.

## 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.

School of Social Work Programs and Courses

## Major

## Social Work Curriculum

The social work curriculum leads to a bachelor of social work (BSW) 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.

Active articulation agreements exist between this program and Jackson Community College, Monroe County Community College, Oakland Community College, Schoolcraft College, Washtenaw Community College and Wayne County Community College

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Liberal Arts Requirements: 24-26 hours

- ANTH 135 - Introduction to Cultural Anthropology Credits: 3 hrs
- BIO 105 - Introductory Biology for Non-majors Credits: 4 hrs or a 3 credit hour course in Human Biology
- PLSC 112 - American Government Credits: 3 hrs
- PSY 101 - General Psychology Lecture Credits: 3 hrs
- PSY 360 - Abnormal Psychology Credits: 3 hrs
- SOCL 105 - Introductory Sociology Credits: 3 hrs

One course from the following:

- EDPS 325 - Life Span Human Growth and Development Credits: 4 hrs
- IHHS 260 - Aging to Infancy: A Life Course Retrospective Credits: 3 hrs Major Requirements: 68-69 hours

Required Courses: Pre-Major: 10 hours

- SWRK 120 - Introduction to Social Work Services and Professional Roles Credits: 3 hrs
- SWRK 200 - Human Diversity and Social Justice Credits: 3 hrs
- SWRK 222 - Social Welfare Policies and Services Credits: 3 hrs
- SWRK 251 - Self Assessment and Development for Social Work Credits: 1 hr

Required Course: Major: 46-47 hours

- $\quad$ SWRK 315 - Theoretical Bases for Social Work Practice Credits: 3 hrs
- SWRK 317 - Interpersonal Foundations of Social Work Practice Credits: 4 hrs
- SWRK 318 - Practice I - Skill Integration Seminar Credits: 1 hr
- SWRK 319 - Writing for Agency Practice Credits: 3 hrs
- SWRK 330 - Social Work Evaluation and Research: Qualitative and Statistical Methods Credits: 4 hrs
- SWRK 350 - Generalist Social Work Practice with Organizations and Communities Credits: 3 hrs
- SWRK 405 - Analysis and Change of Social Welfare Policies Credits: 3 hrs
- SWRK 408 - Generalist Social Work Practice with Individuals and Families Credits: 3 hrs
- SWRK 409 - Generalist Social Work Practice with Groups Credits: 3 hrs
- SWRK 450 - Practice Issues with Women Credits: 3 hrs
- SWRK 451 - Practice Issues with People of Color Credits: 3 hrs
- SWRK 488 - Field Experience I Credits: 6 hrs
- SWRK 489 - Field Experience II Credits: 6 hrs

Restricted Elective Courses: Cross Cultural and Course on Women: 6 hours
Students are required to take two cross cultural courses and one course on women. They may count SWRK200 as either a cross cultural course or a course on women. In consultation with a social work adviser, students must select two additional courses from the General Education curriculum.
Students may not count Cultural Anthropology, listed as a General Education requirement under U.S. Diversity, as a cross-cultural course.
Please note that some of these courses will meet general education requirements.
Minor Requirements: 0 hours
No minor is required:
Soclal Work Elective: 2-3 hours
Program Total: 124 hours

Minor

## Social Work Minor

This minor is compatible with disciplines where the college graduate will be in a helping role with people.
Required Courses: 9 hours

- SWRK 120 - Introduction to Social Work Services and Professional Roles Credits: 3 hrs
- SWRK 200 - Human Diversity and Social Justice Credits: 3 hrs
- SWRK 222 - Social Welfare Policies and Services Credits: 3 hrs

Elective Courses: 11-12 hours

11 to 12 hours selected in consultation with a social work adviser from social work elective courses. Minor Total: 20-21 hours

# College of Technology 

## Dean

Morel D. Boone
122 Sill Hall
Phone: 734.487.1161

Interim Associate Dean
Pauline W. Buchanan
122 Sill Hall
Phone: 734.487.3685

Website: http://emich.edu/cot/

## Schools and Departments

- Engineering Technology
- Technology Studies
- Military Science and Leadership


## The Mission

The Mission of the College of Technology is to cultivate the intellectual and personal growth of individuals through collaborative teaching, research, and outreach programs between students and faculty. We emphasize innovative relationships between theory and practice in order to graduate technologically skilled life-long learners who can contribute effectively to their profession and society.

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. The college is currently composed of the schools of Engineering Technology and Technology Studies and the Department of Military Science and Leadership. Undergraduate programs provide a solid foundation in mathematics, science, technology management and human relations in order to effectively serve the career aspirations of our students. Students learn to apply sound theory to practical problems and have opportunities for laboratory and cooperative work experiences. Also included within the college is the University's long-standing military science program that promotes leadership qualities for and entry into the active Army, Army Reserve or National Guard as a commissioned officer.

Inherent in the interdisciplinary philosophy of the College is the use of existing courses and personnel throughout the University. Specific programs have been designed as collaborative efforts with other colleges including Arts and Sciences and Business.

The college 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 four units from grant funding through the state of Michigan: Business Professionals of America, Michigan DECA (Distributive Education Clubs of America), FCCLA (Family, Career, and Community Leaders of America), 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.

## Schools and Majors

## School of Engineering Technology

Applied Technology<br>Computer Aided Design<br>Computer Engineering Technology<br>Construction Management<br>Electronics Engineering Technology<br>Interior Design<br>Manufacturing Engineering Technology<br>Manufacturing Technology<br>Mechanical Engineering Technology<br>Polymers and Coatings<br>Pre-Engineering<br>\section*{School of Technology Studies}<br>Apparel, Textiles and Merchandising<br>Aviation Flight Technology<br>Aviation Management Technology<br>Business, Management, Marketing and Technology<br>Communication Technology<br>Hotel and Restaurant Management<br>Industrial Distribution<br>Information Assurance<br>Paralegal Studies<br>Network and Information Technology Administration<br>Technology and Design Education<br>Technology Management

## Centers and Institutes

The College of Technology has four centers and institutes that interface with business, industry and governmental agencies to provide applied research and continuing education. These centers and institutes are:

## The Center for Product Research and Development

The Center for Product Research and Development (CPRD) is dedicated to helping manufacturing and construction businesses grow. The CPRD assists innovators to develop concepts into products. The professional services, prototyping, manufacturing facilities and entrepreneurial ideas can add to success in the highly competitive marketplace.

The mission of CPRD is to provide a vital link between University activities and manufacturing and construction industries through applied research and education.

Through collaboration with the Michigan Small Business Development Center, the Center for Product Research and Development can assist companies and inventors in the development of a product as well as assistance in establishing a business and bringing a product to market.

## The Center for Regional and National Security

The mission of the Center for Regional and National Security (CeRNS) 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 CeRNS has served the law enforcement and fire communities, it has created new initiatives directed to 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.
Law Enforcement and School Safety unites the very successful School of Police Staff and Command, with the School of First-Line Supervision, that 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. Programs have been delivered across the state to more than 1,500 law enforcement executive officers, and to school personnel across the United States.
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, fi re management and our regional and national response to homeland security.

## The Coatings Research Institute

The Coating's Research Institute's (CRI) two-fold mission is to be a leading academic organization and develop relevant scientific knowledge for understanding and expanding the science and technology of paints, coatings, inks, adhesives and related nano-based materials. The results of this mission 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 collaborations with government, industry and other educational institutions are consistent with the mission of the College of Technology and the mission of the University.
CRI is dedicated to providing solutions to some of the tough problems facing the coatings industry such as reducing VOCs in paint and coatings. The institute's goals include the following:

- Synthesize new types of polymers and emulsions of potential value to coatings research,
- Improve and advance polymer and coatings characterization, analysis and test methods,
- Expand the knowledge base of coatings and technology through research on chemical and physical phenomena involved in paints and coatings,
- Provide an increased pool of well-trained coatings professionals to the coatings industry and provide continuing education opportunities to coatings industry personnel through relevant polymer and coatings technology short courses.


## The Textile Research and Training Institute

The Textiles Research and Training Institute (TRTI) mission is to be a leading research and academic organization that provides relevant and creative research in the area of "applied textiles" that match across multidisciplines and industries. The TRTI provides a variety of educational training programs for industries that use textiles for various applications.
TRTI 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.

Some of TRTI's recent projects include the following:

- Anti-bacterial/protective fabrics, "Smart Fabric" involving sensors within the fabric
- Environmentally friendly, polymer textiles "Green Textiles"
- Protective garments for security purposes i.e., bullet-proof vests, contract digitizing
- 2-D digitizing via the Gerber AcuuMark ${ }_{\circledR}$ system for overwork or pattern development
- Industrial cutting services, high speed, single-ply cutting on a DCS2500 Cutter® with CutWorks® software Pattern development, prototyping services, training on Gerber platform software are also offered.


## Honors College

## Director

Dr. James A. Knapp
Starkweather Hall
Phone: 734.487.0341
or 734.487.0345
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## 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. Admission is based on the full application including high school GPA and ACT/ SAT scores. Current EMU and transfer students who have completed at least 15 credits are evaluated on the basis of their college GPA. Applicants will be notified of acceptance or denial by letter. Denied applicants can reapply 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: 2 required
4. Honors College Community-Based Intellectual and Cultural Activities.
5. Leadership and Civic Engagement Activities.
C. Community Service: 40 hours required
6. Approximately ten hours should be completed each year (freshman, sophomore, junior and senior).
II. Departmental Honors
A. Coursework: 12 credit hours required
7. A minimum of 12 credit hours must be completed in the major or minor.
8. Six non-general education credit hours earned pursuing University Honors can be counted toward this requirement.
B. Workshops: 2 required
9. Undergraduate Research and Creative Activities
a. This workshop is designed for students beginning the process that will lead to the completion of the Senior Thesis/Project (usually in the Junior year).
10. Honors Senior Thesis Workshop
a. This workshop covers the nuts and bolts of completing and processing the Senior Thesis/Project (usually taken in the semester prior to the planned thesis completion).
C. Thesis
11. 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), 40 hours (total) community service, and two honors experiences.
Note: Honors students should consult the Honors Student Handbook for complete program requirements. Students are bound by the handbook published in the year that they join the College. Requirements for students entering prior to Fall 2009 may differ from those listed above.

## 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 indepth 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 ten hours of community service annually for a total of 40 hours. The required form is downloadable on the HC web site or can be obtained from the HC office. All projects must be preapproved 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 removed 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:
- Downing Community of Scholars Residence Hall
- 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.

# Military Science and Leadership Programs 

## Military Science and Leadership

Department Head: LTC David B. Beougher<br>Address: 18 Roosevelt Hall<br>Phone: 734.487.1020<br>Email: dbeoughe@emich.edu<br>Web site: http://armyrotc.com/edu/easternmi/index.htm

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 $200-l e v e l$ 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 fiveweek 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 maybe 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 andMSL402) 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 Programs and Courses

## Minor

## Military Science and Leadership Minor

Required Courses: 20 hours
Students must take all of the following 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.

- MSL 101 - Foundations of Officership Credits: 2 hrs
- MSL 102 - Basic Leadership Credits: 2 hrs
- MSL 201 - Individual Leadership Studies Credits: 2 hrs
- MSL 202 - Leadership and Teamwork Credits: 2 hrs
- MSL 301 - Leadership and Problem Solving Credits: 3 hrs
- MSL 302 - Leadership and Ethics Credits: 3 hrs
- MSL 401 - Leadership and Management Credits: 3 hrs
- MSL 402 - Officership Credits: 3 hrs

Minor Total: 20 hours

## School of Engineering Technology Programs

# School of Engineering Technology 

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#### Abstract

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<br>B.S. Applied Technology - Macomb Community College<br>B.S. Applied Technology - Monroe County Community College<br>B.S. Applied Technology - Mott Community College<br>B.S. Applied Technology - Oakland Community College<br>B.S. Applied Technology - Owens Community College<br>B.S. Applied Technology - Schoolcraft College<br>B.S. Applied Technology - St. Clair College<br>B.S. Applied Technology - Washtenaw Community College<br>B.S. Applied Technology - Wayne County Community College<br>B.S. Construction Management - Monroe County Community College<br>B.S. Construction Management - Oakland Community College<br>B.S. Construction Management - Washtenaw Community College<br>B.S. Electronic Engineering - Henry Ford Community College

## 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.

School of Engineering Technology Programs and Courses

## Major

## 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 transfer 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.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 75 hours
Required Courses: 20 hours

- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 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
Electives Courses: 9 hours

Program Total: 124 hours

Note:

## 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 hours

For specific requirements refer to the General Education Program .

Additional Requirements: 15 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs
- STS 150 - Understanding Technology Credits: 3 hrs
- STS 201 - Microcomputer Applications in Technology Credits: 3 hrs One course from the following:
- MATH 118 - Linear Models and Probability Credits: 3 hrs
- MATH 119 - Applied Calculus Credits: 3 hrs

Major Requirements: 39 hours

- AVT 100 - Introduction to Air Transportation Credits: 3 hrs
- AVT 110 - Aircraft Maintenance I Credits: 3 hrs
- AVT 120 - Flight Operations I Credits: 3 hrs
- AVT 170 - Aviation Ground Instruction Credits: 3 hrs
- AVT 208 - Aviation Human Factors Credits: 3 hrs
- AVT 220 - Flight Operations II Credits: 3 hrs
- AVT 303-Aviation Law and Insurance Credits: 3 hrs
- AVT 313 - Aviation Industry Regulations Credits: 3 hrs
- AVT 315 - Airport Management Credits: 3 hrs
- AVT 320 - Aviation Safety Credits: 3 hrs
- AVT 322 - System Safety in Aviation Credits: 3 hrs
- AVT 387 - Co-operative Education in Aviation Technology Credits: 3 hrs
- AVT 422 - Senior Seminar in Aviation Management Credits: 3 hrs

General Business Requirements: 30 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- DS 265 - Business Statistics I Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 0 hours

Note:

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

## 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
For specific requirements refer to the General Education Program .
Major Requirements: 84 hours
Required Courses: 81 hours

- Writing Intensive Course ( 3 hrs )
- PDD 122 - Engineering Graphics Credits: 4 hrs
- CET 251 - Engineering Software and Applications Credits: 3 hrs
- CET 353 - Web Development for Engineering Applications Credits: 3 hrs
- CET 387 - Cooperative Education in Computer Engineering Technology Credits: 3 hrs
- CET 427 - Programmable Logic Controller Credits: 3 hrs
- CET 451 - Engineering Database Development Credits: 3 hrs
- CET 453 - Engineering Programming Credits: 3 hrs
- CET 491 - Senior Design Capstone Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 246 - Programming in C++ Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- ELEC 214 - Digital Circuit Analysis I Credits: 3 hrs
- ELEC 215 - Computer-Aided Electronics Credits: 3 hrs
- ELEC 218 - Motors and Controls Credits: 3 hrs
- ELEC 300 - Analog Circuit Analysis I Credits: 3 hrs
- ELEC 320 - Microcomputer Circuits Credits: 3 hrs
- ET 100 - Introduction to Engineering Technology Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- OM 374 - Introduction to Operations Management Credits: 3 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

Restricted Electives: 3 hours
Three hours from the following selected in consultation with the adviser:

- MET 223 - Descriptive Geometry Credits: 2 hrs
- CET 426 - Engineering Product Information Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 321 - Computer Organization II Credits: 3 hrs
- ELEC 314 - Digital Circuit Analysis II Credits: 3 hrs
- ELEC 420 - Advanced Microprocessors Credits: 3 hrs
- IS 315 - Object-Oriented Application Development Credits: 3 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MATH 325 - Differential Equations Credits: 3 hrs
- PDD 111 - Materials Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PHY 230 - Engineering Dynamics Credits: 4 hrs

Minor Requirements: 0 hours
No minor is required
Program Total: 124 hours

## 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.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 94 hours
Required Courses: 46 hours

- CNST 125 - Introduction to Construction Credits: 2 hrs
- CNST 201 - Construction Systems Credits: 3 hrs
- CNST 202 - Construction Materials Credits: 3 hrs
- CNST 206 - Surveying Credits: 3 hrs
- CNST 213 - Construction Safety Credits: 3 hrs
- CNST 228 - Construction Graphics Credits: 3 hrs
- CNST 229 - Analysis of Commercial Prints Credits: 3 hrs
- CNST 302 - Contract Documents, Regulations, and Specifications Credits: 3 hrs
- CNST 303 - Electrical, Mechanical, and Equipment Systems Credits: 3 hrs
- CNST 304 - Construction Estimating and Bidding Credits: 3 hrs
- CNST 361 - Planning and Scheduling Credits: 3 hrs
- CNST 387-Cooperative Education in Construction Management Credits: 3 hrs
- CNST 403 - Production Control Credits: 2 hrs
- CNST 406 - Construction Law Credits: 3 hrs
- CNST 412 - Fundamentals of Structural Design Credits: 3 hrs
- CNST 450 - Fundamentals of Construction Project Management Credits: 3 hrs CM Restricted Elective: 15 hours

15 hours from the following:

- CNST 426 - Mechanical and Electrical Construction Applications Credits: 3 hrs
- CNST 436 - Heavy/Highway Construction Contracting Credits: 3 hrs
- CNST 446 - Senior Seminar on Professional Issues in Engineering, Technology and Construction Credits: 1 hr
- CNST 479 - Special Topics Credits: 3 hrs

CNST 479 - Environmental Construction Contracting (3 hrs)
CNST 479 - Construction Business Ownership (3 hrs)
CNST 479 - Residential Land Development (3 hrs)

- GHPR 335 - Historic Preservation Credits: 3 hrs
- GPLN 215 - Introduction to Urban and Regional Planning Credits: 3 hrs
- IDE 208 - Introduction to Basic Design Credits: 3 hrs
- IDE 317 - Lighting Systems for Interior Designers Credits: 3 hrs

Natural Sciences/Quantitive Reasoning: 11 hours

- ESSC 110 - The Dynamic Earth System Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

Natural Sciences/Math Restricted Elective: 4 hours
Four hours from the following:

- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs
with
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- MATH 120 - Calculus I Credits: 4 hrs

Additional courses with adviser approval.
Business Major Requirements:
18 hours from the following:

- ACC 130 - Accounting for Nonbusiness Majors Credits: 3 hrs
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ECON 320 - Labor Economics Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- LAW 350 - International Business Law Credits: 3 hrs
- LAW 393 - Law of Business Enterprises Credits: 3 hrs
- LAW 403 - Employment Law Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 481 - Managing the Entrepreneurial Venture Credits: 3 hrs
- MGMT 482 - Compensation Administration Credits: 3 hrs
- MGMT 484 - Management-Union Relations Credits: 3 hrs
- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 375 - International Business Transactions Credits: 3 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs

Additional courses with adviser approval
Minor Requirements: 0 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.

## 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.
General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 91 hours
Required Courses: 91 hours

- Writing Intensive Course ( 3 hrs )
- PDD 122 - Engineering Graphics Credits: 4 hrs
- CET 426 - Engineering Product Information Credits: 3 hrs
- CET 427 - Programmable Logic Controller Credits: 3 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- COSC 246 - Programming in C++ Credits: 3 hrs
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- ELEC 210 - Circuit Analysis II Credits: 3 hrs
- ELEC 214 - Digital Circuit Analysis I Credits: 3 hrs
- ELEC 215 - Computer-Aided Electronics Credits: 3 hrs
- ELEC 218 - Motors and Controls Credits: 3 hrs
- ELEC 300 - Analog Circuit Analysis I Credits: 3 hrs
- ELEC 310 - Analog Circuit Analysis II Credits: 3 hrs
- ELEC 314 - Digital Circuit Analysis II Credits: 3 hrs
- ELEC 320 - Microcomputer Circuits Credits: 3 hrs
- ELEC 326 - Transform Circuit Analysis with Calculus Credits: 3 hrs
- ELEC 387 - Cooperative Education in Electronic Technology Credits: 3 hrs
- ELEC 415 - Communication Circuits Credits: 3 hrs
- ELEC 420 - Advanced Microprocessors Credits: 3 hrs
- ELEC 450 - Senior Design Project Credits: 3 hrs
- ET 100 - Introduction to Engineering Technology Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 122 - Elementary Linear Algebra Credits: 3 hrs
- MET 312 - Applied Dynamics Principles Credits: 3 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs
- QUAL 320 - Industrial Quality Control Credits: 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.

## Interior Design Program

The interior design program offers a Council for Interior Design Accreditation (CIDA) 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 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 a 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.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program.
Additional Requirements: 18 hours

- ART 123 - Drawing I Credits: 3 hrs
- ART 165 - Graphic Design for Nonmajors Credits: 3 hrs
- CNST 201 - Construction Systems Credits: 3 hrs
- SET 350 - Engineering Communication Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs

Major Requirements: 70 hours
Required Courses: 64 hours

- IDE 110 - Interior Design Studio I Credits: 3 hrs
- IDE 111 - Human Factors and Universal Design Credits: 3 hrs
- IDE 120 - Interior Design Studio II Credits: 3 hrs
- IDE 121 - Interior Design Materials and Components Credits: 3 hrs
- IDE 122 - Interior Design Theory II Credits: 3 hrs
- IDE 123-Computers for Interior Design I Credits: 3 hrs
- IDE 131 - Interior Design Theory I Credits: 3 hrs
- IDE 210 - Interior Design Studio III Credits: 3 hrs
- IDE 219 - Computers for Interior Design II Credits: 3 hrs
- IDE 220 - Interior Design Studio IV Credits: 3 hrs
- IDE 221 - Environmental Systems for Interior Designers Credits: 3 hrs
- IDE 222 - History of Interiors Credits: 3 hrs
- IDE 310 - Interior Design Studio V Credits: 3 hrs
- IDE 317 - Lighting Systems for Interior Designers Credits: 3 hrs
- IDE 318 - Interior Building Codes and ADA Credits: 3 hrs
- IDE 320 - Interior Design Studio VI Credits: 3 hrs
- IDE 322 - Office Design, Spaceplanning and Specification Credits: 3 hrs
- IDE 323 - Internship in Interior Design Preparation Credits: 3 hrs
- IDE 410 - Interior Design Studio VII Credits: 3 hrs
- IDE 411 - Internship in Interior Design Credits: 3 hrs
- IDE 420 - Interior Design Studio VIII Credits: 3 hrs
- IDE 422 - Professional Practice in Interior Design Credits: 3 hrs

Interior Design Elective Courses: 6 hours
Any two courses with an IDE prefix. Selected in consultation with the interior design adviser.
Minor Requirements: 0 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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 82 hours
Required Courses: 82 hours

- PDD 122 - Engineering Graphics Credits: 4 hrs
- MET 223 - Descriptive Geometry Credits: 2 hrs
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- ELEC 218 - Motors and Controls Credits: 3 hrs
- ET 100 - Introduction to Engineering Technology Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- MET 211 - Statics Credits: 3 hrs
- MET 313 - Applied Mechanics of Materials Credits: 3 hrs
- MET 319 - Fluid Mechanics Credits: 3 hrs
- PDD 111 - Materials Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PDD 124 - Manufacturing Processes and Methods II Credits: 3 hrs
- PDD 203 - Industrial Operation Credits: 3 hrs
- PDD 220 - Geometric Dimensioning and Tolerancing Credits: 3 hrs
- PDD 316 - Concept Development Studio Credits: 3 hrs
- PDD 361 - Computer Numerical Control Credits: 3 hrs
- PDD 387 - Cooperative Education in Manufacturing Technology Credits: 3 hrs
- PDD 421 - Manufacturing Engineering Analysis Credits: 3 hrs
- PDD 470 - Integrated Product and Process Design Credits: 3 hrs
- PDD 492 - Product Realization Studio Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs
- SET 350 - Engineering Communication Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University 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.

## 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 handson 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 Requirements: 40 hours
For specific requirements refer to the General Education Program.

Major Requirements: 80 hours
Required Courses: 80 hours

- PDD 122 - Engineering Graphics Credits: 4 hrs
- MET 223 - Descriptive Geometry Credits: 2 hrs
- PDD 325 - Applied Statics and Strength of Materials Credits: 3 hrs
- CHEM 117 - Fundamentals of Chemistry-Lecture Credits: 3 hrs
- CHEM 118 - Fundamentals of Chemistry Laboratory Credits: 1 hr
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- ELEC 218 - Motors and Controls Credits: 3 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- PDD 111 - Materials Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PDD 124 - Manufacturing Processes and Methods II Credits: 3 hrs
- PDD 203 - Industrial Operation Credits: 3 hrs
- PDD 220 - Geometric Dimensioning and Tolerancing Credits: 3 hrs
- PDD 306 - Plastic Processing Credits: 3 hrs
- PDD 316 - Concept Development Studio Credits: 3 hrs
- PDD 361 - Computer Numerical Control Credits: 3 hrs
- PDD 387 - Cooperative Education in Manufacturing Technology Credits: 3 hrs
- PDD 421 - Manufacturing Engineering Analysis Credits: 3 hrs
- PDD 425 - Advanced Manufacturing Methods Credits: 3 hrs
- PDD 470 - Integrated Product and Process Design Credits: 3 hrs
- PDD 492 - Product Realization Studio Credits: 3 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs

One course from the following:

- ACC 130-Accounting for Nonbusiness Majors Credits: 3 hrs
- ACC 240 - Principles of Financial Accounting Credits: 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.

## 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
For specific requirements refer to the General Education Program.
Major Requirements: 91 hours

- Writing Intensive Course (3 hrs)
- MET 387 Cooperative Education ( 3 hrs )
- CHEM 121 - General Chemistry I Credits: 3 hrs
- CHEM 122 - General Chemistry I Laboratory Credits: 1 hr
- COSC 246 - Programming in C++ Credits: 3 hrs
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- ELEC 218 - Motors and Controls Credits: 3 hrs
- ET 100 - Introduction to Engineering Technology Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MET 211 - Statics Credits: 3 hrs
- MET 223 - Descriptive Geometry Credits: 2 hrs
- MET 312-Applied Dynamics Principles Credits: 3 hrs
- MET 313-Applied Mechanics of Materials Credits: 3 hrs
- MET 314 - Applied Thermodynamics and Heat Transfer Credits: 3 hrs
- MET 319 - Fluid Mechanics Credits: 3 hrs
- MET 411 - Mechanical/Machine Design Credits: 3 hrs
- MET 434 - Finite Element Analysis for Engineering Applications Credits: 3 hrs
- MET 437 - Kinematics of Machines Credits: 3 hrs
- MET 470 - Mechanical Vibrations Credits: 3 hrs
- MET 492 - Senior Design Projects I Credits: 3 hrs
- MET 493 - Senior Design Projects II Credits: 3 hrs
- PDD 124 - Manufacturing Processes and Methods II Credits: 3 hrs
- PDD 111 - Materials Credits: 3 hrs
- PDD 122 - Engineering Graphics Credits: 4 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PDD 316 - Concept Development Studio Credits: 3 hrs
- PHY 223 - Mechanics and Sound Credits: 5 hrs
- PHY 224 - Electricity and Light Credits: 5 hrs

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.

## 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
For specific requirements refer to the General Education Program.
Additional Requirements: 16 hours

- CHEM 123-General Chemistry II Credits: 3 hrs
- CHEM 124-General Chemistry II Laboratory Credits: 1 hr
- CHEM 381 - Instrumentation for Chemical Technology Credits: 2 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs

Major Requirements: 51 hours

- CHEM 281 - Quantitative Analysis Credits: 4 hrs
- CHEM 361 - Fundamentals of Physical Chemistry Credits: 3 hrs
- CHEM 371 - Organic Chemistry I Credits: 3 hrs
- CHEM 372 - Organic Chemistry II Credits: 3 hrs
- CHEM 373 - Organic Chemistry Laboratory Credits: 2 hrs
- PC 203 - Miniaturization in Technology Credits: 3 hrs
- PC 260 - Introduction to Coatings Science and Technology Credits: 3 hrs
- PC 310 - Polymers for Engineers and Technologists Credits: 3 hrs
- PC 387-Cooperative Education in Interdisciplinary Technology Credits: 3 hrs
- PC 400 - Polymers and Coatings Technology I Credits: 3 hrs
- PC 401 - Polymers and Coatings Technology I Laboratory Credits: 3 hrs
- PC 402 - Polymers and Coatings Technology II Credits: 3 hrs
- PC 403 - Polymers and Coatings Technology II Laboratory Credits: 3 hrs
- PC 404 - Coatings Raw Materials Credits: 3 hrs
- PC 416 - Water-Based Coatings Credits: 3 hrs
- PC 460 - Advanced Coatings Topics Credits: 3 hrs
- SET 350 - Engineering Communication Credits: 3 hrs

Elective Courses: 18 hours

## Eighteen hours from the following:

- CHEM 340 - Introduction: to Industrial Chemistry Credits: 3 hrs
- CHEM 341 - Fundamentals of Material Science Credits: 3 hrs
- CHEM 415 - Environmental Chemistry Credits: 3 hrs
- PC 185 - World of the Super Small Credits: 3 hrs
- PC 379 - Special Topics Credits: 3 hrs
- PC 406 - Colloids and Interfaces Credits: 3 hrs
- PC 407 - Coating Processes II Credits: 3 hrs
- PC 477 - Special Topics Credits: 1 hr
- PC 478 - Special Topics Credits: 2 hrs
- PC 479 - Special Topics Credits: 3 hrs
- PC 487 - Cooperative Education in Interdisciplinary Technology Credits: 3 hrs
- PC 497 - Independent Study Credits: 1 hr
- PC 498 - Independent Study Credits: 2 hrs

Minor Requirements: 0 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

## Product Design and Development Major

Students majoring in Product Design and Development are prepared for a wide range of product design and development job opportunities. The program prepares students to participate in the customer driven product realization
process including concept generation, evaluating design alternatives, computer modeling, prototyping, engineering analysis, selecting materials and processes, cost estimating, tool development, quality and production.

General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .
Major Requirements: 83 hours

- ART 131 - Three-Dimensional Design Credits: 3 hrs
- MATH 105 - College Algebra Credits: 3 hrs
- MATH 107 - Plane Trigonometry Credits: 2 hrs
- PDD 111 - Materials Credits: 3 hrs
- PDD 122 - Engineering Graphics Credits: 4 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PDD 156 - Teamwork in Product Design and Development Credits: 3 hrs
- PDD 157 - Introduction to Product Design Credits: 3 hrs
- PDD 212 - Molding Materials and Processes Credits: 3 hrs
- PDD 220 - Geometric Dimensioning and Tolerancing Credits: 3 hrs
- PDD 224 - 3-D Solid Modeling Credits: 3 hrs
- PDD 309 - Molded Product Design Credits: 3 hrs
- PDD 310 - Formed Product Design Credits: 3 hrs
- PDD 316 - Concept Development Studio Credits: 3 hrs
- PDD 325 - Applied Statics and Strength of Materials Credits: 3 hrs
- PDD 331 - Product Design Data Management Credits: 3 hrs
- PDD 350 - Protyping Credits: 3 hrs
- PDD 380 - Engineering Cost Estimating Credits: 3 hrs
- PDD 387 - Cooperative Education in Product Design and Development Credits: 3 hrs
- PDD 432 - 3-D Modeling and Surfacing Techniques Credits: 3 hrs
- PDD 433 - Advanced Tool Development Credits: 3 hrs
- PDD 435 - Finite Element Analysis Credits: 3 hrs
- PDD 491 - Computer-Aided Design Studio Credits: 3 hrs
- PDD 492 - Product Realization Studio Credits: 3 hrs
- PHY 222 - Electricity and Light Credits: 4 hrs
- QUAL 320 - Industrial Quality Control Credits: 3 hrs
- SET 350 - Engineering Communication Credits: 3 hrs

University Elective Courses: 1 hour

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.

## Minor

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

- CNST 125 - Introduction to Construction Credits: 2 hrs
- CNST 201 - Construction Systems Credits: 3 hrs
- CNST 202 - Construction Materials Credits: 3 hrs
- CNST 228 - Construction Graphics Credits: 3 hrs
- CNST 229 - Analysis of Commercial Prints Credits: 3 hrs
- CNST 302 - Contract Documents, Regulations, and Specifications Credits: 3 hrs
- CNST 304 - Construction Estimating and Bidding Credits: 3 hrs
- CNST 361 - Planning and Scheduling Credits: 3 hrs

Minor Total: 23 hours

Note:

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

## Interior Design Minor

Required Courses: 6 hours

- IDE 111 - Human Factors and Universal Design Credits: 3 hrs
- IDE 131 - Interior Design Theory I Credits: 3 hrs

Restricted Elective Courses: 14 hours

Fourteen hours from the following:

- IDE Elective ( 2 hrs )

Selected in consultation with the interior design adviser

- IDE 110 - Interior Design Studio I Credits: 3 hrs
- IDE 120 - Interior Design Studio II Credits: 3 hrs
- IDE 121 - Interior Design Materials and Components Credits: 3 hrs
- IDE 122 - Interior Design Theory II Credits: 3 hrs
- IDE 123-Computers for Interior Design I Credits: 3 hrs
- IDE 210 - Interior Design Studio III Credits: 3 hrs
- IDE 219 - Computers for Interior Design II Credits: 3 hrs
- IDE 220 - Interior Design Studio IV Credits: 3 hrs
- IDE 221 - Environmental Systems for Interior Designers Credits: 3 hrs
- IDE 222 - History of Interiors Credits: 3 hrs
- IDE 317 - Lighting Systems for Interior Designers Credits: 3 hrs
- IDE 318 - Interior Building Codes and ADA Credits: 3 hrs
- IDE 322 - Office Design, Spaceplanning and Specification Credits: 3 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

- PDD 111 - Materials Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- PDD 124 - Manufacturing Processes and Methods II Credits: 3 hrs
- PDD 203 - Industrial Operation Credits: 3 hrs

Restricted Electives 9 hours

- PDD 122 - Engineering Graphics Credits: 4 hrs
- MET 223 - Descriptive Geometry Credits: 2 hrs
- PDD 212 - Molding Materials and Processes Credits: 3 hrs
- PDD 220 - Geometric Dimensioning and Tolerancing Credits: 3 hrs
- PDD 306 - Plastic Processing Credits: 3 hrs
- PDD 316 - Concept Development Studio Credits: 3 hrs
- PDD 361 - Computer Numerical Control Credits: 3 hrs
- PDD 421 - Manufacturing Engineering Analysis Credits: 3 hrs
- PDD 425 - Advanced Manufacturing Methods Credits: 3 hrs
- PDD 470 - Integrated Product and Process Design Credits: 3 hrs
- PDD 492 - Product Realization Studio Credits: 3 hrs
- QUAL 320 - Industrial Quality Control Credits: 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 Programs

## School of Technology Studies

Director: John E. Boyless

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Web site: www.emich.edu/sts

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. Aviation Management - Schoolcraft College<br>B.S. Communication Technology - Schoolcraft College<br>B.S. Hotel/Restaurant Management - Henry Ford Community College<br>B.S. Hotel/Restaurant Management - Monroe Community College<br>B.S. Hotel/Restaurant Management - Schoolcraft College<br>B.S. Hotel/Restaurant Management - Washtenaw Community College<br>B.S. Industrial Distribution - Henry Ford Community College<br>B.S. Industrial Distribution - Washtenaw Community College<br>B.S. Information Assurance - Henry Ford Community College<br>B.S. Paralegal - Delta Community College<br>B.S. Paralegal - Henry Ford Community College<br>B.S. Paralegal - Jackson Community College<br>B.S. Paralegal - Macomb Community College<br>B.S. Paralegal - Oakland Community College<br>B.S. Paralegal - Washtenaw Community College<br>B.S. Technology \& Design Education - Washtenaw Community College<br>B.S. Technology Management - Delta Community College<br>B.S. Technology Management - Grand Rapids Community College<br>B.S. Technology Management - Henry Ford Community College<br>B.S. Technology Management - Jackson Community College<br>B.S. Technology Management - Macomb Community College<br>B.S. Technology Management - Monroe County Community College<br>B.S. Technology Management - Oakland Community College<br>B.S. Technology Management - Schoolcraft College<br>B.S. Technology Management - Washtenaw Community College<br>B.S. Technology Management - Wayne County Community College District

## 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.

School of Technology Studies Programs and Courses

## 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. The program offers reserach opportunities for undergraduate students in textile science. A minor in art, communication, physical science, journalism, management, marketing or theatre is required

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Major Requirements: 24 hours
Required Courses: 6 hours

- ATM 145 - Introduction to Apparel and Textile Merchandising Credits: 3 hrs
- ATM 487 - Field Experience Credits: 3 hrs

Apparel Design Courses: 3 hours

- ATM 118 - Apparel Studio Credits: 3 hrs

Merchandising Program: 6 hours

- ATM 345 - Merchandise Planning and Control Credits: 3 hrs
- ATM 355 - Application of Merchandising Practices Credits: 3 hrs Textile Science Courses: 9 hours
- ATM 212 - Textile Science I: Fibers \& Yarns Credits: 3 hrs
- ATM 255 - Apparel Analysis Credits: 3 hrs
- ATM 312 - Textile Science II: Fabric Formation, Dyeing and Finishing Credits: 3 hrs Elective Courses: 24 hours


## Twenty-four hours from the following:

- ATM 105 - Integrated Arts Credits: 3 hrs
- ATM 118 - Apparel Studio Credits: 3 hrs
- ATM 119 - Early American Textiles Credits: 3 hrs
- ATM 135 - Cultural Study of Dress Credits: 3 hrs
- ATM 210 - Display Techniques Credits: 3 hr
- ATM 265 - Merchandising of Interior Furnishings Credits: 3 hrs
- ATM 302 - Fashion Manufacturing Techniques Credits: 3 hrs
- ATM 378 - Special Topics Credits: 2 hrs
- ATM 380 - Fashion of the Haute Couture Credits: 3 hrs
- ATM 390 - Visual Merchandising Credits: 3 hrs
- ATM 392 - Pattern Design Credits: 3 hrs
- ATM 404-Textiles for Merchandising Credits: 3 hrs
- ATM 439 - Fashion Markets Credits: 3 hrs
- ATM 460 - Tailoring Credits: 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
For specific requirements refer to the General Education Program .
Major Requirements: 76 hours

- AVT 100 - Introduction to Air Transportation Credits: 3 hrs
- AVT 110 - Aircraft Maintenance I Credits: 3 hrs
- AVT 120 - Flight Operations I Credits: 3 hrs
- AVT 170-Aviation Ground Instruction Credits: 3 hrs
- AVT 208 - Aviation Human Factors Credits: 3 hrs
- AVT 215 - Aviation Weather Credits: 3 hrs
- AVT 220 - Flight Operations II Credits: 3 hrs
- AVT 222 - Introduction to Automation in Aviation Credits: 3 hrs
- AVT 255 - Private Pilot Certification Credits: 4 hrs
- AVT 263 - Aircraft Systems Credits: 3 hrs
- AVT 303 - Aviation Law and Insurance Credits: 3 hrs
- AVT 313 - Aviation Industry Regulations Credits: 3 hrs
- AVT 320 - Aviation Safety Credits: 3 hrs
- AVT 321 - Cockpit and Crew Resource Management Credits: 3 hrs
- AVT 322 - System Safety in Aviation Credits: 3 hrs
- AVT 341 - Instrument Ground Instruction Credits: 2 hrs
- AVT 342-Commercial Ground Instruction Credits: 2 hrs
- AVT 355 - Instrument Pilot Certification Credits: 4 hrs
- AVT 361-Commercial/Complex Flight Instruction Credits: 2 hrs
- AVT 371 - Commercial Certification Credits: 2 hrs
- AVT 382 - Flight Instructor Ground Instruction Credits: 3 hrs
- AVT 419 - High Airspeed Aerodynamics/High Altitude Flight Credits: 3 hrs
- AVT 422 - Senior Seminar in Aviation Management Credits: 3 hrs
- AVT 426 - Multi-Engine Flight Instruction Credits: 3 hrs
- AVT 427 - Flight Instructor: Airplane Credits: 2 hrs
- PHY 221 - Mechanics, Sound and Heat Credits: 4 hrs

Electives: 0-4 hours

- AVT 428 - Flight Instructor: Instrument Credits: 2 hrs
- AVT 429 - Flight Instructor: Multi-Engine Credits: 2 hrs

University Electives: 4-8 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.

* This course is a flight course involving flight activities conducted at the Eagle Flight Center.


## Business, Management, Marketing and Technology Major

Successful completion of this course of studies, in the context of other program requirements, qualifies the student for recommendaton for certification for the Michigan Department of Education Secondary Provisional Certificate endorsed in Business, Management, Marketing and Technology, certification code GQ. The Michigan Test for Teacher Certification (MTTC) covering this field is \#98, "Business, Management, Marketing and Technology."

## 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

For specific requirements refer to the General Education Program .
Additional Requirements: 11 hours

- BMMT 123 - Word Processing/Keyboarding Applications Credits: 2 hrs
- BMMT 220 - Word/Information Processing Operations Credits: 3 hrs
- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

Major Requirements: 52-53 hours

Business Core: 12 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- BMMT 100 - Contemporary Business Credits: 3 hrs
- BMMT 201-Microcomputers for Business Applications Credits: 3 hrs

Undergraduates choose one course from the following:

- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- ACC 296-The Accounting Cycle and Profession Credits: 3 hrs

Post-Baccalaureates choose one course from the following:

- ACC 500 - Accounting Principles (3 hrs)
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs Management Core: 12 hours
- TM 212 - The Management of Technological Change Credits: 3 hrs One course from the following:
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- LAW 503-Legal Environment of Business Credits: 3 hrs

One course from the following:

- BMMT 250 - Personal Finance Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- FIN 502 - Financial Principles Credits: 3 hrs One course from the following:
- BMMT 395 - Administering Workplace Systems and Technology Credits: 3 hrs
- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs Marketing Core: 13-14 hours
- BMMT 200 - Principles of Career and Technical Education Credits: 3 hrs
- BMMT 366 - Methods of Teaching Marketing Education Credits: 2 hrs One course from the following:
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- MKTG 510 - Marketing Management Credits: 3 hrs

Choose two courses from the following but only one may be a BMMT course.:

- BMMT 368 - Management of Marketing Education Programs Credits: 2 hrs
- BMMT 461 - Projects and Simulations in Marketing Education Credits: 2 hrs
- MKTG 261 - Contemporary Selling Credits: 3 hrs
- MKTG 363 - Retailing Credits: 3 hrs
- MKTG 365 - Consumer Behavior Credits: 3 hrs
- MKTG 368 - Marketing Strategy Credits: 3 hrs
- MKTG 369 - Advertising Credits: 3 hrs
- MKTG 374 - Business to Business Marketing Credits: 3 hrs
- MKTG 461 - Sales Management Credits: 3 hrs

IT Core: 15 hours

- BMMT 321 - Digital Tools: Communication Credits: 3 hrs
- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- CMT 421 - Web Publishing Technology Credits: 3 hrs
- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- STS 224 - Solving Quantitative Problems in Technology Credits: 3 hrs

Professional Studies: 39 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
- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

Phase 1: Curriculum, Assessment and the Social Context: 9 hours
Courses that require formal admission to the teacher education program.

- BMMT 363-Curriculum for Career and Technical Education Credits: 3 hrs
- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase 11: Content Methods, Literacy and Technology: 10 hours

- BMMT 364 - Methods in Teaching General Business Subjects Credits: 2 hrs
- BMMT 365 - Methods of Teaching Office Education Credits: 2 hrs
- BMMT 366 - Methods of Teaching Marketing Education Credits: 2 hrs
- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs

Phase 111: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

Minor Requirements: 0 hours
No minor is required.
Program Total: 142-143 hours
Notes:

Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.
*This course replaces CURR 305 for BMMT majors.

## Communication Technology Curriculum

Communication technology is a joint program offered by the Department of Interdisciplinary Technology and the Department of Communication, Media and Theatre Arts. This curriculum is designed to provide the background necessary for graduates to find employment as managers in communicationbased 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.
General Education Requirements: 40 hours

For specific requirements refer to the General Education Program .
Major Requirements: 65 hours

Media Production: 9 hours

- CTAT 130 - Introduction to Electronic Media Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs

One course from the following:

- CTAT 331 - Intermediate Radio Production and direction Credits: 3 hrs
- CTAT 332 - Intermediate Television Production and Direction Credits: 3 hrs Transmission Systems: 9 hours
- CMT 305 - Communication Transmission Systems Credits: 3 hrs
- CMT 408 - Telephone Technology Credits: 3 hrs
- ELEC 120 - Principles of Electrical Theory Credits: 3 hrs Computer Technology: 12 hours

Choose one option from the following:
Option I: Computer Programming

- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 255 - Computer Hardware and Software Systems Credits: 3 hrs

Option II: Information Management

- IS 420 - Business Data Communications and Computer Networks (3 hrs)
- IS 219 - File Processing and COBOL Programming Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs

One course from the following:

- IS 417 - Systems Analysis and Design Credits: 3 hrs
- IS 442 - Information Resource Management Credits: 3 hrs

Option III: Graphic Applications

- CMT 205 - Digital Photo-Technology Credits: 3 hrs
- CMT 301 - Multimedia Authoring Techniques Credits: 3 hrs
- CMT 421 - Web Publishing Technology Credits: 3 hrs
- CMT 436 - Electronic Publishing Technology Credits: 3 hrs

Communication Theory and Practice: 6 hours

- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 354- Organizational Communication Credits: 3 hrs

Business and Investment Skills: 6 hours

- MKTG 360 - Principles of Marketing Credits: 3 hrs
- PSY 205 - Quantitative Methods in Psychology Credits: 3 hrs

Management Skills: 6 hours

- ACC 130-Accounting for Nonbusiness Majors Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs

Interdisciplinary Technology: 17 hours

- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 131 - Introduction to Computer Graphic Systems Credits: 3 hrs
- CMT 387-Co-operative Education Credits: 3 hrs
- CMT 409 - Emerging Technologies in Storage and Retrieval Credits: 3 hrs
- CMT 425-Communication Technology and Social Change Credits: 3 hrs
- CMT 470 - Senior Seminar in Communication Technology Credits: 2 hrs

Minor Requirements: 0 hours
No minor is required.
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 Masters of Science degree.

An active articulation agreement exists between this program and Henry Ford Community College, Schoolcraft College and Washtenaw Community College.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Additional Requirements: 3 hours

- BMMT 201-Microcomputers for Business Applications Credits: 3 hrs

Major Requirements: 56 hours
Specialization Courses: 44 hours

- HRM 103 - Introduction to the Hospitality Industry Credits: 3 hrs
- HRM 150 - Sanitation in the Hospitality Industry Credits: 2 hrs
- HRM 180 - Food Production Credits: 3 hrs
- HRM 251 - Meal Service Management Credits: 3 hrs
- HRM 268 - Hotel Operations Management Credits: 3 hrs
- HRM 289 - Cooperative Education in Hotel and Restaurant Management Credits: 3 hrs
- HRM 340 - Cost Controls in the Hospitality Industry Credits: 3 hrs
- HRM 376 - Legal Aspects of the Hospitality Industry Credits: 3 hrs
- HRM 389 - Cooperative Education in Hotel and Restaurant Management Credits: 3 hrs
- HRM 410 - Human Resource Issues in the Hospitality Industry Credits: 3 hrs
- HRM 430 - Seminar in Hospitality Management Credits: 3 hrs
- HRM 441-Commercial Purchasing Credits: 3 hrs
- HRM 450 - Meetings and Events Management Credits: 3 hrs
- HRM 470 - Hospitality Industry Marketing Credits: 3 hrs
- HRM 496-Strategies in Hospitality Management Credits: 3 hrs

Elective Courses: 12 hours
Twelve hours from the following:

- HRM 177-Special Topics Credits: 1 hr
- HRM 178 - Special Topics Credits: 2 hrs
- HRM 179 - Special Topics Credits: 3 hrs
- HRM 270 - People Skills for the Hospitality Industry Credits: 3 hrs
- HRM 277-Special Topics Credits: 1 hr
- HRM 278 - Special Topics Credits: 2 hrs
- HRM 279 - Special Topics Credits: 3 hrs
- HRM 330 - Hotel and Restaurant Management Credits: 3 hrs
- HRM 350 - Lodging Facilities Management Credits: 3 hrs
- HRM 360 - Franchising and Contract Management Credits: 3 hrs
- HRM 377 - Special Topics Credits: 1 hr
- HRM 378 - Special Topics Credits: 2 hrs
- HRM 379 - Special Topics Credits: 3 hrs
- HRM 396-Club and Resort Management Credits: 3 hrs
- HRM 420 - Quality Service Management Credits: 3 hrs
- HRM 460 - Advanced Foodservice Management Credits: 3 hrs
- HRM 465 - Advance Topics in Hospitality Management Credits: 3 hrs
- HRM 475 - International Hospitality Management Credits: 3 hrs
- HRM 480-Gaming and Casino Management Credits: 3 hrs
- HRM 497 - Independent Study Credits: 1 hr
- HRM 498 - Independent Study Credits: 2 hrs
- HRM 499 - Independent Study Credits: 3 hrs

Minor Requirements: 21 hours
Minor in management is recommended. Consult an adviser for other appropriate minors.
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.

## 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. Studentts 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. For more information please visit the Transfer Information section of the catalog.

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .

Major Requirements: 66-75 hours
Required Courses: 39 hours

- ID 140 - Introduction to Wholesale Distribution Credits: 3 hrs
- ID 240 - Profit Strategies in Distribution Credits: 3 hrs
- ID 340 - Relationships in Wholesaling Credits: 3 hrs
- ID 345 - Industrial Direct Response Credits: 3 hrs
- ID 346 - Industrial Climate Credits: 3 hrs
- ID 387-Co-operative Education Credits: 3 hrs
- ID 391 - Wholesale Account Development Credits: 3 hrs
- ID 440 - Inventory Strategies in Distribution Credits: 3 hrs
- ID 444 - Quality Planning in Distribution Credits: 3 hrs
- ID 448 - Wholesale Policy and Distribution Credits: 3 hrs
- IS 215 - End-User Computing Credits: 3 hrs
- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs

Concentrations: 27-36 hours
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 )

Other concentrations with advisery approval:
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 advisery 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 (CAEIAE) 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
For specific requirements refer to the General Education Program .
Major Requirements: 84 hours
Foundation Course: 27 hours

- COSC 105 - Everyday Computing and Social Responsibility Credits: 3 hrs
- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- IA 103 - Information Security Overview Credits: 3 hrs
- IA 202 - Risk-Vulnerability Analysis Credits: 3 hrs
- MATH 170 - Elementary Statistics Credits: 3 hrs
- MGMT 202 - Business Communication Credits: 3 hrs
- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- NITA 212 - Open Systems Platform and Network Administration Credits: (3 hrs)

One concentration from the following:
Information Assurance Management: Concentration for Second Admission:

Information assurance management will enable the student to focus on management of information systems. Th e 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

- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- IA 329 - Policy Development in Information Assurance Credits: 3 hrs
- IS 350 - Enterprise Resource Planning Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- IS 425 - Information Systems Project Management Credits: 3 hrs
- LEGL 413 - The Law and the Internet Credits: 3 hrs
- MGMT 386-Organizational Behavior and Theory Credits: 3 hrs
- MGMT 403-Managerial Communication: Theory and Application Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- NITA 422 - Networks: Planning and Design Credits: 3 hrs

Internship in MGMT, IS, CS or STS Credit: 6 hrs

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 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

- COSC 374 - Applied Cryptography Credits: 3 hrs
- IA 325 - Cyber Crime Investigation I Credits: 3 hrs
- IA 327 - Computer Forensics I Credits: 3 hrs
- IA 329 - Policy Development in Information Assurance Credits: 3 hrs
- IA 415 - Introduction to Research in Information Assurance Credits: 3 hrs
- IA 416 - Applied Research Project Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- LEGL 413 - The Law and the Internet Credits: 3 hrs
- NITA 344 - Administration of Computer Systems Credits: 3 hrs
- NITA 412 - Linux Security Administration Credits: 3 hrs
- NITA 422 - Networks: Planning and Design Credits: 3 hrs One course from the following:
- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- IS 380 - Introduction to Databases Credits: 3 hrs

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- MGMT 403 - Managerial Communication: Theory and Application Credits: 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

- COSC 314 - Computational Discrete Structures Credits: 3 hrs
- IA 415 - Introduction to Research in Information Assurance Credits: 3 hrs
- IA 416 - Applied Research Project Credits: 3 hrs
- IS 413 - Information Technology Infrastructure and Security Credits: 3 hrs
- LEGL 413 - The Law and the Internet Credits: 3 hrs
- MATH 120 - Calculus I Credits: 4 hrs
- MATH 121 - Calculus II Credits: 4 hrs
- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs
- MATH 319 - Mathematical Modeling Credits: 3 hrs
- MATH 409 - Cryptology Credits: 3 hrs

One course from the following:

- CTAC 224 - Public Speaking Credits: 3 hrs
- CTAC 225 - Listening Behavior Credits: 3 hrs
- CTAC 227 - Interpersonal Communication Credits: 3 hrs
- CTAC 350 - Persuasion Credits: 3 hrs
- ENGL 324 - Principles of Technical Communication Credits: 3 hrs
- MGMT 403 - Managerial Communication: Theory and Application Credits: 3 hrs

Electives: 18-20 hours
Suggested electives include:

- BMMT 396 - Information and Media Administration Credits: 3 hrs
- IA 326 - Cyber Crime Investigation II Credits: 3 hrs
- IA 328 - Computer Forensics II Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs

Program Total: 124 hours
Notes:

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

For specific requirements refer to the General Education Program.
Additional Requirements: 3 hours

- BMMT 201 - Microcomputers for Business Applications Credits: 3 hrs

Major Requirements: 51 hours
Network and Administration: 21 hours

- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- CMT 305 - Communication Transmission Systems Credits: 3 hrs
- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- NITA 344 - Administration of Computer Systems Credits: 3 hrs
- NITA 387 - Co-operative Education Credits: 3 hrs
- NITA 422 - Networks: Planning and Design Credits: 3 hrs
- NITA 495 - Networks: Implementation and Evaluation Credits: 3 hrs Business and Technology Foundations: 18 hours
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- BMMT 396 - Information and Media Administration Credits: 3 hrs
- COSC 111 - Introduction to Programming Credits: 3 hrs
- LAW 293-Legal Environment of Business Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- STS 224 - Solving Quantitative Problems in Technology Credits: 3 hrs Restricted Elective Courses: 12 hours

Select restricted electives in consultation with Network and information Technology Administration program advisers:
Other options recommended by adviser

- CMT 408-Telephone Technology Credits: 3 hrs
- CMT 409 - Emerging Technologies in Storage and Retrieval Credits: 3 hrs
- COSC 205 - Computer Hardware and Software Systems Credits: 3 hrs
- NITA 212 - Open Systems Platform and Network Administration Credits: (3 hrs)
- NITA 379 - Special Topics Credits: 3 hrs

NITA 379 - Multinetwork Connectivity ( 3 hrs )
NITA 379 - Special Network Servers (3 hrs)

- NITA 412 - Linux Security Administration Credits: 3 hrs

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. These 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.

## 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 ENGL 121 with a grade of B or higher
*see note
3. Completion of LEGL 211 Introduction to Paralegalism and Legal Terminology, with a grade of B- or higher
4. Completion of LEGL 304 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 LEGL 211 and LEGL 304 - see above]), with a minimum grade of C
2. Maintain a cumulative GPA of at least 2.5 on a 4.0 scale
**see note
3. Maintain a GPA within the major of at least 2.5 on a 4.0 scale
**see note
Notes:
*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 that 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
For specific requirements refer to the General Education Program.
Additional Requirements: 6 hours
Select one option from the following:
Option I:

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs Option II:
- SOCL 105 - Introductory Sociology Credits: 3 hrs
- SOCL 202 - Social Problems Credits: 3 hrs

Major Requirements: 72 hours
Required Courses: 33 hours

- LEGL 211 - Introduction to Paralegalism and Legal Terminology Credits: 3 hrs
- LEGL 212 - Law Office Administration and Technology Credits: 3 hrs
- LEGL 304 - Legal Writing, Research and Analysis I Credits: 3 hrs
- LEGL 305 - Advanced Legal Writing, Research and Analysis II Credits: 3 hrs
- LEGL 306 - Advanced Legal Writing, Research and Analysis III Credits: 3 hrs
- LEGL 311 - Probate, Estates and Wills Credits: 3 hrs
- LEGL 313 - Family Law Credits: 3 hrs
- LEGL 404 - Court Rules, Forms and Drafting Contracts Credits: 3 hrs
- LEGL 405 - Civil Litigation, Investigation and Procedure I Credits: 3 hrs
- LEGL 406-Civil Litigation, Investigation and Procedure II Credits: 3 hrs
- LEGL 416 - Legal Assistant Internship Credits: 3-6 hrs

Restricted Elective Courses: 21 hours
21 hours from the following or any other law-related course with department permission:

- LEGL 417- Legal Assistance Center Clinical Experience (3 hrs)
- BMMT 220 - Word/Information Processing Operations Credits: 3 hrs
- BMMT 396 - Information and Media Administration Credits: 3 hrs
- BMMT 497 - Independent Study Credits: 1 hrs
- BMMT 498 - Independent Study Credits: 2 hrs
- BMMT 499 - Independent Study Credits: 3 hrs
- CTAC 357 - Interviewing as Communication Credits: 3 hrs
- LAW 293-Legal Environment of Business Credits: 3 hrs
- LAW 393 - Law of Business Enterprises Credits: 3 hrs
- LAW 403 - Employment Law Credits: 3 hrs
- LEGL 278 - Special Topics Credits: 2 hrs
- LEGL 279 - Special Topics Credits: 3 hrs
- LEGL 315 - Land Transaction and Real Estate for Paralegals Credits: 3 hrs
- LEGL 379 - Special Topics Credits: 3 hrs
- LEGL 413 - The Law and the Internet Credits: 3 hrs
- LEGL 415 - Bankruptcy Law Credits: 3 hrs
- LEGL 478 - Special Topics Credits: 2hrs
- LEGL 479 - Special Topics Credits: 3hrs

LEGL 479 - Women and the Law (3 hrs)

- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- PHIL 355 - Philosophy of Law Credits: 3 hrs
- PLSC 301 - American Legal System Credits: 3 hrs
- PLSC 312 - Constitutional Law: Institutions and Process Credits: 3 hrs
- PLSC 313 - Constitutional Law: Civil Rights and Liberties Credits: 3 hrs
- PLSC 341 - International Law Credits: 3 hrs
- PLSC 385 - Judicial Process and Behavior Credits: 3 hrs
- PLSC 412 - Comparative Legal Systems Credits: 3 hrs
- PLSC 456 - Criminal Law I Credits: 3 hrs
- STS 202 - Disabled in the U.S.A. - Rights, Prejudice, Claims and Responsibilities Credits: 3 hrs

Business and Information Processing Core: 15 hours

- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- BMMT 201 - Microcomputers for Business Applications Credits: 3 hrs
- BMMT 396 - Information and Media Administration Credits: 3 hrs
- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- STS 224 - Solving Quantitative Problems in Technology Credits: 3 hrs

Minor Requirements: 0 hours
No minor is required.
University Elective Courses: 9 hours
Program Total: 124 hours

Note:
*This course meets the "Quantitive Reasoning" requirement.
**These courses meet the "Learning Beyond the Classroom" requirement.
***LEGL 304 meets the writing intensive requirement.

## Simulation, Animation and Gaming Major

General Education Requirements: 40 hours
For specific requirements refer to the General Education Program .
Required Courses: 57 hours

- COSC 156 - Introduction to Alice ( 3 hrs )
- COSC 215 - Scientific Simulation (3 hrs)
- ART 122 - Two-Dimensional Design Credits: 3 hrs
- ART 123 - Drawing I Credits: 3 hrs
- ART 131-Three-Dimensional Design Credits: 3 hrs
- CMT 131 - Introduction to Computer Graphic Systems Credits: 3 hrs
- CMT 205 - Digital Photo-Technology Credits: 3 hrs
- COSC 111 - Introduction to Programming Credits: 3 hrs
- COSC 211 - Programming Data Structures Credits: 3 hrs
- CTAT 141 - Audio and Video Production for Nonmajors Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 486 - Organizational Change and Team Building Credits: 3 hrs
- SAG 105 - Introduction to Simulation, Animation and Gaming Credits: 3 hrs
- SAG 175 - Graphics for Simulation I Credits: 3 hrs
- SAG 225 - Graphics for Simulation II Credits: 3 hrs
- SAG 235 - Flash I Credits: 3 hrs
- SAG 245 - Story Development Credits: 3 hrs
- SAG 285 - Studio I Simulation Credits: 3 hrs
- STS 300 - Research and Writing: The Technology Career Credits: 3 hrs

Select from either Cognate A or Cognate B:
Cognate A: 18 hours
This cognate allows students to continue in the graphic and design aspect of simulation, animation and gaming.
Required Courses: 15 hours

- SAG 275 - Texturing and Mapping Credits: 3 hrs
- SAG 305 - Environment Design Credits: 3 hrs
- SAG 355 - Lighting and Camera Techniques Credits: 3 hrs
- SAG 375 - Studio II Credits: 3 hrs
- SAG 470 - Simulation and Animation Dynamics Credits: 3 hrs

Capstone Experience: 3 hours

- COSC 485 - Senior Projects in SAG Credits: 3 hrs
or
- SAG 485 - Senior Projects in SAG Credits: 3 hrs

Cognate B: 24 hours
This cognate allows the students to purses their final two ears in the Computer Science Department, learning the programming languages needed to succeed in the SAG profession. The courses in this cognate utilize existing courses within the department.

- COSC 221 - Computer Organization I Credits: 3 hrs
- COSC 311 - Algorithms and Data Structures Credits: 3 hrs
- COSC 456 - Computer Graphics Credits: 3 hrs
- COSC 457 - Computer Game Programming Credits: 3
- COSC 461 - Heuristic Programming Credits: 3 hrs
- COSC 481 - Software Engineering and Senior Project Credits: 3 hrs
- COSC 486 - Cooperative Education in Computer Science Credits: 1 hrs
- MATH 205 - Mathematical Structures for Computer Science Credits: 4 hrs

Minor Requirements: 20 hours
Program Total: 135-141 hours

## Technology and Design Education Major-K-12 Teacher Certification

The technology and design major prepares teachers of technology education for grades K-12.
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."

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.

An active articulation agreement exists between this program and Washtenaw Community College. For more information please see the Transfer Information section of the catalog.

General Education Requirements: 40 hours

Major Requirements: 36 hours

- Elective in technology (requires adviser permission) $(1 \mathrm{hr})$
- CMT 121 - Graphic Communication Credits: 3 hrs
- CNST 201 - Construction Systems Credits: 3 hrs
- ELEC 200 - Circuit Analysis I Credits: 3 hrs
- PDD 123 - Manufacturing Processes Credits: 4 hrs
- TEDU 103 - Structures and Design in Technology Credits: 3 hrs
- TEDU 106 - Processing Technology Credits: 3 hrs
- TEDU 114 - Information and Control Technology Credits: 3 hrs
- TEDU 118 - Energy and Transportation Technology Credits: 3 hrs
- TEDU 246 - Safety in Technology and Vocational Education Credits: 2 hrs
- TEDU 250 - Foundations of Technology and Vocational Education Credits: 3 hrs
- TEDU 350 - Curriculum in Technology and Vocational Education Credits: 3 hrs
- TEDU 450 - Solving Technological Problems Credits: 3 hrs

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
These courses may be taken before formal admission to the teacher education program:

- EDPS 322 - Human Development and Learning Credits: 4 hrs
- FETE 201 - Field Experience I Credits: 1 hr
- SPGN 251 - Education of Students with Exceptionalities Credits: 3 hrs

The following courses require formal admission to the teacher education program:
Phase I: Curriculum, Assessment and the Social Context: 6 hours

- EDPS 340 - Introduction to Assessment and Evaluation Credits: 3 hrs
- SOFD 328W - Schools for a Diverse and Democratic Society Credits: 3 hrs

Phase II: Content Methods, Literacy and Technology: 7 hours

- FETE 402 - Field Experience III: Secondary Credits: 1 hr
- RDNG 311 - Teaching Reading in the Secondary School Credits: 3 hrs
- TEDU 460 - Methods of Teaching Technology and Vocational Education Credits: 3 hrs

Phase III: Capstone Experience: 12 hours

- EDUC 492 - Student Teaching Credits: 12 hrs

University Elective Courses: 0 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 within 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. Please see the Transfer Information section of the catalog for more information.

General Education Requirements: 40 hours

For specific requirements refer to the General Education Program.
Additional Requirements: 9-12 hours

- ECON 201 - Principles of Macroeconomics Credits: 3 hrs
- ECON 202 - Principles of Microeconomics Credits: 3 hrs

One course from the following:

- MATH 118 - Linear Models and Probability Credits: 3 hrs
- STS 224 - Solving Quantitative Problems in Technology Credits: 3 hrs

Must take this course or a proficiency exam:

- STS 201 - Microcomputer Applications in Technology Credits: 3 hrs

Major Requirements: 57-76 hours
Core Courses: 15 hours

- TM 130 - Introduction to Technology Management Credits: 3 hrs
- TM 212 - The Management of Technological Change Credits: 3 hrs
- TM 311 - Information Technology Management and Organizations Credits: 3 hrs
- TM 314 - A Socio-Technical Systems Approach to Process Improvement Credits: 3 hrs
- TM 415 - Senior Seminar in Technology Management Credits: 3 hrs

Technology Management Elective Courses: 12-15 hours
Twelve to 15 hours from the following:

- ACC 130 - Accounting for Nonbusiness Majors Credits: 3 hrs
- ACC 240 - Principles of Financial Accounting Credits: 3 hrs
- ACC 241 - Principles of Managerial Accounting Credits: 3 hrs
- ACC 358 - Analysis of Financial Statements Credits: 3 hrs
- FIN 350 - Principles of Finance Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- LAW 403 - Employment Law Credits: 3 hrs
- MGMT 384 - Human Resource Management Credits: 3 hrs
- MGMT 386 - Organizational Behavior and Theory Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MKTG 360 - Principles of Marketing Credits: 3 hrs
- MKTG 369 - Advertising Credits: 3 hrs
- TM 308 - Seminar in Technological Impacts Credits: 3 hrs
- TM 377 - Special Topics Credits: 1 hr
- TM 378 - Special Topics Credits: 2 hrs
- TM 379 - Special Topics Credits: 3 hrs
- TM 387 - Co-operative Education Credits: 3 hrs
- TM 477 - Special Topics Credits: 1 hr
- TM 478-Special Topics Credits: 2 hrs
- TM 479 - Special Topics Credits: 3 hrs

Technical Concentration 30-46 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 Requirements: 0 hours
No minor is required.
University Elective Courses: 0-18 hours
Program Total: 124-128 hours
Note:
Each student must choose a writing intensive course as part of major completion requirements. Consult your adviser for course options.

## Minor

## Administrative Management Minor

Required Courses: 12 hours

- BMMT 310 - Word/Information Processing Administration Credits: 3 hrs
- BMMT 387 - Co-operative Education Credits: 3 hrs
- BMMT 395 - Administering Workplace Systems and Technology Credits: 3 hrs
- BMMT 396 - Information and Media Administration Credits: 3 hrs

Restricted Elective Courses: 9 hours

Nine hours from the following:

- BMMT 220 - Word/Information Processing Operations Credits: 3 hrs
- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- HLAD 305 - The U.S. Health Care System Credits: 3 hrs
- HLAD 310 - Administration of Health Care Organizations Credits: 2 hrs
- HLAD 425 - Decision Making for Health Administrators Credits: 3 hrs
- LAW 293 - Legal Environment of Business Credits: 3 hrs
- LEGL 211 - Introduction to Paralegalism and Legal Terminology Credits: 3 hrs
- LEGL 212 - Law Office Administration and Technology Credits: 3 hrs
- MGMT 388 - Introduction to Entrepreneurship Credits: 3 hrs
- MGMT 480 - Management Responsibility and Ethics Credits: 3 hrs
- MGMT 488 - Field Studies in Entrepreneurship Credits: 3 hrs
- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- STS 202 - Disabled in the U.S.A. - Rights, Prejudice, Claims and Responsibilities Credits: 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

- ATM 118 - Apparel Studio Credits: 3 hrs
- ATM 145 - Introduction to Apparel and Textile Merchandising Credits: 3 hrs
- ATM 235 - Introductory Textiles Credits: 3 hrs
- ATM 255 - Apparel Analysis Credits: 3 hrs

Restricted Elective Courses: 12 hours
One course from each of the following areas:

1. Construction skills:

- ATM 302 - Fashion Manufacturing Techniques Credits: 3 hrs
- ATM 392 - Pattern Design Credits: 3 hrs
- ATM 460 - Tailoring Credits: 3 hrs

11. Methodology:

- ATM 390 - Visual Merchandising Credits: 3 hrs
- HECR 499 - Directed Study Credits: 3 hrs

111. Social-psychological-historical:

- ATM 135 - Cultural Study of Dress Credits: 3 hrs
- ATM 380 - Fashion of the Haute Couture Credits: 3 hrs
IV. Textiles application:
- ATM 119 - Early American Textiles Credits: 3 hrs
- ATM 265 - Merchandising of Interior Furnishings Credits: 3 hrs
- ATM 404-Textiles for Merchandising Credits: 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

- CMT 104-Introduction to Communication Technology Credits: 3 hrs
- CMT 121 - Graphic Communication Credits: 3 hrs
- CMT 204 - Photographic Communication Credits: 3 hrs
- CMT 207 - Digital Imaging and Reproduction Credits: 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 Requirements: 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

- HRM 103 - Introduction to the Hospitality Industry Credits: 3 hrs
- HRM 150 - Sanitation in the Hospitality Industry Credits: 2 hrs
- HRM 180 - Food Production Credits: 3 hrs
- HRM 268 - Hotel Operations Management Credits: 3 hrs
- HRM 287 - Cooperative Education in Hotel and Restaurant Management Credits: 1 hr
- HRM 340-Cost Controls in the Hospitality Industry Credits: 3 hrs

Electives: 6 hours

Electives chosen from within the HRM specialization courses.
Program Total: 21 hours

# Network and Information Technology Administration Minor 

Required Courses: 21 hours

- BMMT 201 - Microcomputers for Business Applications Credits: 3 hrs
- BMMT 396 - Information and Media Administration Credits: 3 hrs
- BMMT 496 - Records Administration Using Database Credits: 3 hrs
- NITA 210 - Concepts of Network and Business Technology Credits: 3 hrs
- NITA 212 - Open Systems Platform and Network Administration Credits: (3 hrs)
- NITA 344 - Administration of Computer Systems Credits: 3 hrs
- STS 224 - Solving Quantitative Problems in Technology Credits: 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

- TEDU 250 - Foundations of Technology and Vocational Education Credits: 3 hrs
- TEDU 253 - Technology Education for Children Credits: 3 hrs
- TEDU 354 - Experiences in Technology for Children Credits: 2 hrs
- TEDU 355 - Seminar in Technology for the Elementary School Credits: 2 hrs Twelve hours from the following:
- CMT 121 - Graphic Communication Credits: 3 hrs
- TEDU 103 - Structures and Design in Technology Credits: 3 hrs
- TEDU 106 - Processing Technology Credits: 3 hrs
- TEDU 114 - Information and Control Technology Credits: 3 hrs
- TEDU 118 - Energy and Transportation Technology Credits: 3 hrs

Select a minimum of two hours from the following:

- CMT 204 - Photographic Communication Credits: 3 hrs
- TEDU 152 - Arts and Crafts Credits: 3 hrs
- TEDU 350 - Curriculum in Technology and Vocational Education Credits: 3 hrs
- TEDU 452 - Principles of Vocational Education Credits: 3 hrs
- TEDU 497 - Directed Study-Technology Education Credits: 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.


## AAS 101 - Introduction to African American Studies

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. Credit Hours: 3 hrs

## AAS 102 - Introduction to African Civilization

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. __Credit Hours: 3 hrs

## AAS 177 - Special Topics

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. _Credit Hours: 1 hr

## AAS 178 - Special Topics

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
_Credit Hours: 2 hrs

## AAS 179 - Special Topics

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.
Credit Hours: 3 hrs

## AAS 201 - Foundations of Knowledge in

 African American StudiesExamines the empirical and theoretical foundations of African American studies, the
evolution of the field and the role of key scholars in its development. __Credit Hours: 3 hrs

## AAS 221 - African American Social Movements

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. __Credit Hours: 3 hrs

## AAS 231 - Urbanization and the African American Community

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. __Credit Hours: 3 hrs

## AAS 232 - Politics in the African American Experience

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.
_Credit Hours: 3 hrs

## AAS 233 - Public Policy and African Americans

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. __Credit Hours: 3 hrs

## AAS 242 - Black Women: Politics and Racism

And 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 non-political realm when discussing groups traditionally marginalized or excluded from political life. __Credit Hours: 3 hrs Cross-Listed: This course is cross-listed with PLSC242.

## AAS 243 - Black Women: Politics and Racism

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. __Credit Hours: 3 hrs Cross-Listed: This course is cross-listed with PLSC 243/WGST 243.

## AAS 272 - Hip Hop Lyricism in African American Culture

This course is an examination of the cultural continuity exemplified by the socially concious hip hop lyricism to the African American poetic and musical forms that preceded it. __Credit Hours: 3 hrs

## AAS 277 - Special Topics

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
_Credit Hours: 1 hr

## AAS 278 - Special Topics

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.
__Credit Hours: 2 hrs

## AAS 279 - Special Topics

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.
Credit Hours: 3 hrs

## AAS 297 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. Credit Hours: 1 hr _Prerequisite: department permission

## AAS 298 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. __Credit Hours: 2 hrs _Prerequisite: department permission

## AAS 299 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. __Credit Hours: 3 hrs _Prerequisite: department permission

## AAS 301 - Writing for African American Studies

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.
Credit Hours: 3 hrs _Prerequisite:
ENGL121

## AAS 301W - Writing for African American Studies

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description

Credits: 3 hrs

## AAS 311 - The African Diaspora

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. __Credit Hours: 3 hrs

## AAS 312 - African Civilization

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. Credit Hours: 3 hrs

## AAS 313 - Contemporary Africa: The Struggle and Prospects for Development

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. __Credit Hours: 3 hrs

## AAS 351 - The Social Context of African American Health

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. __Credit Hours: 3 hrs

## AAS 361 - The African American Family

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. __Credit Hours: 3 hrs

## AAS 362 - Black Women: Religion and Sexism

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. Credit Hours: 3 hrs CrossListed: This course is cross-listed with PLSC362 and WGST362

## AAS 370 - Films of the African American Experience

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. _Credit Hours: 3 hrs

## AAS 377 - Special Topics

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 Credit Hours: 1 hr _Prerequisite:
department permission

## AAS 378 - Special Topics

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. Credit Hours: 2 hrs _Prerequisite:
department permission

## AAS 379-Special Topics

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 __Credit Hours: 3 hrs _Prerequisite:

## AAS 401 - African American Studies Research Seminar

Provides intensive exposure to research methods in African American studies, and offers an opportunity for primary research in the field. __Credit Hours: 3 hrs

## AAS 402 - African American Studies Internship Seminar

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. Credit Hours: 3 hrs _Prerequisite: AAS101/201/233

## AAS 441 - Law in the African American Experience

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. __Credit Hours: 3 hrs

## AAS 477 - Special Topics

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.
Credit Hours: 1 hr _Prerequisite:
department permission

## AAS 478 - Special Topics

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.

Credit Hours: 2 hrs _Prerequisite:
department permission

## AAS 479 - Special Topics

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
Credit Hours: 3 hrs _Prerequisite:
department permission

## AAS 497 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. Credit Hours: 1 hr _Prerequisite: department permission

## AAS 498 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. __Credit Hours: 2 hrs _Prerequisite: department permission

## AAS 499 - Independent Study

Independent study of a select topic under staff supervision. Possible approaches include library research, field research and participant-observer experiences. __Credit Hours: 3 hrs _Prerequisite: department permission

## ACC 130 - Accounting for Nonbusiness Majors

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 __Credit Hours: 3 hrs _Notes: May not be substituted for ACC240. Not open to students with credit for ACC240 or ACC241.

## ACC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

1 hr _Prerequisite: department permission

## ACC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## ACC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 3 hrs Prerequisite: department permission

## ACC 240 - Principles of Financial Accounting

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
Credit Hours: 3 hrs

## ACC 241 - Principles of Managerial Accounting

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.
Credit Hours: 3 hrs

## ACC 244 - Personal Tax Accounting

Introduction to federal and state income and social security tax problems of individuals. Practice on preparation of individual tax returns. _Credit Hours: 2 hrs _Notes: 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.)

## ACC 246 - Accounting for Public

 AdministratorsSurveys the use of accounting to manage a
public organization. Basic accounting principles, program budgeting and the construction of internal control systems.
Credit Hours: 3 hrs

## ACC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ACC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ACC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ACC 286-Cooperative Education in Accounting

Accounting employment at a business or public organization imparting a practical experience in accounting. Position may be part-time, volunteer, or less than fullsemester in duration. __Credit Hours: 1 hr _Prerequisite: department permission _Notes: Use on an accounting major or minor is not permitted. Admittance by application only

## ACC 287-Cooperative Education in Accounting

One term of full-time or two terms of parttime employment at a business or public organization chosen for imparting practical experience in accounting. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Use on an accounting major or minor $\overline{\text { is not permitted. Admittance by application }}$ only

## ACC 296-The Accounting Cycle and Profession

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. __Credit Hours: 3 hrs _Prerequisite: ACC240

## ACC 340 - Intermediate Accounting

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.
__Credit Hours: 3 hrs _Prerequisite:
ACC296, or department permission

## ACC 342-Managerial Cost Accounting

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. __Credit Hours: 3 hrs _Prerequisite: ACC240 and ACC241 or ACC501

## ACC 344 - Principles of Taxation

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. __Credit Hours: 3 hrs _Prerequisite: ACC240 and ACC241 or ACC501

## ACC 356-Accounting Information

 SystemsConcepts 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. __Credit Hours: 3 hrs _Prerequisite: ACC240 and ACC241 or
ACC501, or department permission

## ACC 358 - Analysis of Financial

 StatementsAnalysis 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. __Credit Hours: 3 hrs _Prerequisite: FIN350

## ACC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## ACC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ACC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ACC 442 - Advanced Cost Accounting

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. __Credit Hours: 3 hrs _Prerequisite: ACC342

## ACC 450 - Internal Auditing

Introduction to the profession of internal auditing. Includes professional standards, techniques, scientific methods, reporting, operational auditing and internal audit management. __Credit Hours: 3 hrs _Prerequisite: ACC240 and ACC241 or ACC501

## ACC 456 - Accounting Information Systems Implementation and Projects

A capstone course for the accounting information systems major designed to develop expertise in the implementation of an accounting information system. __Credit Hours: 3 hrs _Prerequisite: ACC356 and IS380 or department permission

## ACC 460 - Principles of Fraud

 ExaminationThis course examines the principles of fraud examination and deterrence, including the fraud triangle and characteristics of fraud perpetrators and organizations that are more likely to have frauds perpetrated against them. Students will be prepared for certain sections of the Certified Fraud Examiners (CFE) and Certified Internal Auditor (CIA) and CPA professional exams. __Credit Hours: 3 hrs _Prerequisite: ACC 240 and ACC241 or department permission _Notes: Not open for students with credit in ACC560 Fraud Examination.

## ACC 475 - International Accounting

Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting and specific accounting and auditing problems. __Credit Hours: 3 hrs _Prerequisite: ACC240 and ACC241 or ACC501

## ACC 477 - Special Topics

Specialized accounting topics in relation to changes in the practice of accounting and its regulation by government agencies. __Credit Hours: 1 hr _Prerequisite: ACC340/356 and department permission

## ACC 478 - Special Topics

Specialized accounting topics in relation to changes in the practice of accounting and its regulation by government agencies. __Credit Hours: 2 hrs _Prerequisite: ACC340/356 and department permission

## ACC 479 - Special Topics

Specialized accounting topics in relation to changes in the practice of accounting and its regulation by government agencies. __Credit Hours: 3 hrs _Prerequisite: ACC340/356 and department permission

## ACC 489-Accounting Internship

Directed full-time work experience in the accounting phase of a business organization. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Use on an accounting major or minor is not permitted.To be used as an elective only; does not apply on a major or minor. Offered on a credit/no-credit basis

## ACC 491-Accounting Honors Thesis

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. __Credit Hours: 3 hrs _Prerequisite: final semester in undergraduate accounting honors program

## ACC 496 - Financial Management and Controllership

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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: ACC296, ACC 340 , ACC342, ACC356, ACC344/544 and senior standing _Notes: Open to

## ACC 496W - Financial Management and Controllership

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
Credit Hours: 3 hrs
_Prerequisite/Corequisite: ACC296,
ACC340, ACC342, ACC356, ACC344/544
and senior standing _Notes: Open to accounting-BBA majors only.

## ACC 497 - Directed Studies

Directed study of a problem or group of problems in accounting not otherwise treated in departmental courses. __Credit Hours: 1 hr _Prerequisite: department permission

## ACC 498 - Directed Studies

Directed study of a problem or group of problems in accounting not otherwise treated in departmental courses. __Credit Hours: 2 hrs _Prerequisite: department permission

## ACC 499 - Directed Studies

Directed study of a problem or group of problems in accounting not otherwise treated in departmental courses. __Credit Hours: 3 hrs _Prerequisite: department permission

## ACC 510 - Enterprise Systems

Provides the fundamentals of re-engineering and using analyzing enterprise systems to produce efficient and effective management information and appropriate analysis and interpretation for strategic management decision-making with emphasis on accounting applications. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## ACC 511 - Accounting for E-Commerce

This course explores the e-commerce environment including valuing stock of ecommerce firms, understanding the role of
accountants in assessing risk and proving assurance over the authentication of ecommerce transactions, as well as tax and privacy issues. __Credit Hours: 3 hrs _Prerequisite: ACC501 _Notes: This is a graduate course in an undergraduate program.

## ACC 540 - Corporate Financial Reporting

An examination of the generally accepted accounting principles used in corporate financial reporting with particular emphasis on advanced topics such as equity, long-term assets and liabilities, revenue recognition, prior period adjustments and cash flows. Also included in the role of the SEC in financial reporting of publicly traded companies.
__Credit Hours: 3 hrs _Prerequisite: ACC340
_Notes: This is a graduate course in an undergraduate program.

## ACC 541 - Advanced Financial Accounting

Specialized topics in accounting with major emphasis on conceptual aspects and reporting of consolidated financial statements, international accounting challenges and foreign currency reporting issues. __Credit Hours: 3 hrs _Prerequisite: ACC540 or equivalent and department permission. _Notes: This is a graduate course in an undergraduate program.

## ACC 544 - Federal Income Taxation

This course is an introductory study of the tax rules governing individuals. It provides a basic knowledge of the tax formula, property transactions and business and personal deductions that facilitates optimum decisionmaking in both personal and business contexts. This course also provides a foundation for the study of tax planning, research and compliance. __Credit Hours: 3 hrs _Prerequisite: ACC501 or ACC240 and ACC241 _Notes: This is a graduate course in an undergraduate program.

## ACC 546 - Public and Nonprofit Sector Accounting

Accounting issues in governmental and nonprofit entities, including financial reporting, managerial accounting, information systems, auditing and regulatory
and taxation issues. Also included is the SEC's role in financial reporting. __Credit Hours: 3 hrs _Prerequisite: ACC340 or equivalent or department permission _Notes: This is a graduate course in an undergraduate program.

## ACC 548 - Information Systems Audit and Control

This course covers the processing of audit in a computerized accounting information systems environment, and the evaluation of controls and risks in determining audit decisions.__Credit Hours: 3 hrs _Prerequisite: ACC356 or ACC605 _Notes: This is a graduate course in an undergraduate program.

## ACC 560 - Fraud Examination

This course initially provides a basis in internal audit principles, and then concentrates on the study of fraud examination. Specifics of the course focus on the theories of fraud, the "fraud tree," fraud awareness, fraud schemes especially those related to financial frauds and fruad deterrence practices. ACC560 is appropriate for students who have already taken ACC450 Internal Auditing or as a seperate course for those who have not taken ACC450. __Credit Hours: 3 hrs _Prerequisite: ACC501 or department permission_Notes: This is a graduate course in an undergraduate program.

## ACC 567 - Professional Auditing

A study of auditing concepts, objectives and procedures, and of the literature as it relates to current audit process. __Credit Hours: 3 hrs _Prerequisite: ACC 340 and ACC356 _Notes: This is a graduate course in an undergraduate program.

## ACC 584 - Tax Research Methods, Practice and Problems

Introduction of tax research methods including identification of tax issues, efficient use of tax resources and effective communication of the research process. __Credit Hours: 3 hrs _Prerequisite: ACC501
_Notes: This is a graduate course in an undergraduate program.

## ACC 585 - Business Tax Planning

Conceptual coverage of the tax system, taxable and tax-reporting business entities, and principles of taxation for the purpose of identifying the tax planning opportunities in business decisions. __Credit Hours: 3 hrs _Prerequisite: ACC501 _Notes: This is a graduate course in an undergraduate program.

## ACC 592 - Special Topics

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## ACC 642 - Strategic Cost Management

The role of cost management in strategic quality management. Cost accounting systems for continuous improvement; conceptual design, accounting models, performance measurement and investment performance. Topics also include advanced managerial accounting issues, such as activity based costing, profit and investment centers, project planning and control. __Credit Hours: 3 hrs _Prerequisite: ACC605_Notes: This is a graduate course in an undergraduate program.

## ACC 672 - Investment and Tax Financial Planning

This course focuses on the study of tax policy and that economic environment as it relates to strategic tax planning for investments, compensation, business and personal taxation. Basic tax rules that impact compensation planning from the point of view of the employer and the employee are covered along with the tax rules that are relevant for investment planning. An introduction to the rules governing trusts, estates and gifts is also part of the course. __Credit Hours: 3 hrs _Prerequisite: ACC501
_Notes: This is a graduate course in an undergraduate program.

## ACC 675 - International Accounting and Taxation

Introduction to accounting in an international environment. Includes the study of environmental factors, performance evaluation, financial reporting, international taxation and specific accounting and auditing problems. __Credit Hours: 3 hrs _Prerequisite: ACC501 _Notes: This is a graduate course in an undergraduate program.

## ACC 681 - Special Topics

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are studied. Not more than six hours of special topics may be used on a degree program. Credit Hours: 3 hrs _Prerequisite: department permission _Notes: This is a graduate course in an undergraduate program.

## ACC 696 - Accounting Theory, Research and Policy

A capstone course emphasizing and developing an understanding of the many interrelated applications of accounting in organizations and in the broader setting of financial markets. _Credit Hours: 3 hrs _Prerequisite: ACC540 and department permission _Notes: This is a graduate course in an undergraduate program.

## ACC 699 - Independent Study

Directed study or problems in accounting not otherwise treated in department courses. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: This is a graduate course in an undergraduate program.

## AHPR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## AHPR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 2 hrs _Prerequisite: department permission

## AHPR 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AHPR 196 - Introduction to Health Careers

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. __Credit Hours: 2 hrs

## AHPR 200-Medical Terminology

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/nocredit basis._Credit Hours: 1 hr

## AHPR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## AHPR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## AHPR 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AHPR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## AHPR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## AHPR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## AHPR 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## AHPR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AHPR 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hrs _Prerequisite: department permission

## AHPR 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## AHPR 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## AMUS 115-Secondary Applied Music

Secondary applied music. May be repeated for credit. $\qquad$ Credit Hours: $1 / 2 \mathrm{hr}$

## AMUS 116-Principal Applied Music

Lower-level work for music majors (BM) only. May be repeated for credit. __Credit Hours: $2 / 4 \mathrm{hrs}$

## AMUS 415 - Secondary Applied Music

Upper-level work for music majors (BA, BS, BMEI, BMEV, BMT) only. May be repeated for credit. __Credit Hours: 1/2 hrs

## AMUS 416-Principal Applied Music

For music minors. May be repeated for credit. __Credit Hours: 2/4 hrs

ANTH 135 - Introduction to Cultural Anthropology

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. __Credit Hours: 3 hrs

## ANTH 140 - Introduction to Physical Anthropology

A survey of the evolution of primates and hominids and a general introduction to physical anthropological themes relating to prehistoric and living humans. __Credit Hours: 3 hrs _Prerequisite: ANTH135

## ANTH 150 - Introductory Archaeology

A general survey of the field of archeology; the methodologies and analyses employed in the study of prehistoric cultures. __Credit Hours: 3 hrs

## ANTH 177-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ANTH 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ANTH 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ANTH 200 - Writing for Anthropology

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.
__Credit Hours: 3 hrs _Prerequisite:
sophomore, junior or senior standing; ANTH135, ENGL121 and one additional anthropology course at the 100 -, 200- or 300level

## ANTH 208-Minority Women in the United States

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.
__Credit Hours: 3 hrs _Prerequisite:
SOCL105 or ANTH135 _Cross-Listed: This course is cross-listed with
SOCL208/WGST208

## ANTH 210 - History of Anthropological Theory

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.
__Credit Hours: 3 hrs _Prerequisite:
ANTH135

## ANTH 214 - U.S. Racial and Cultural Minorities

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. __Credit Hours: 3 hrs
_Prerequisite: This course is cross-listed with SOC214

## ANTH 219 - Around the World in 80 Years: Adult Development Across Culture <br> Through the study of adult development, students will consider how the aging of the world's population is affecting diverse

cultures, societies - and families - across the globe. Issues of social justice and empowerment related to population aging will addressed, particularly the social, economic, political and policy consequences. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with GERT219 and SOCL219.

## ANTH 233-Cultures of Mesoamerica and the Caribbean

A regional, historical and topical survey of Mesoamerica (Mexico, Guatemala, Belize, El Salvador and Honduras) and Caribbean cultures. __Credit Hours: 3 hrs

## ANTH 236-Peoples and Cultures of Africa

A regional, historical and topical survey of African cultures. __Credit Hours: 3 hrs _Prerequisite: ANTH135

## ANTH 237-Native North American Cultures

A regional, historical and topical survey of aboriginal North American cultures. __Credit Hours: 3 hrs

## ANTH 248-Peoples and Cultures of the Pacific

A regional, historical and topical survey of indigenous Pacific cultures. __Credit Hours: 3 hrs _Prerequisite: ANTH135

## ANTH 250 - World Prehistory

An overview of human prehistory, from the earliest hominids to early statue societies. Course topics include data, theories, and knowledge from anthropological archaeology on hominid material culture, social organization, and dispersals; transitions from foraging societies to Neolithic farming village societies; and the development of different types of state societies. __Credit Hours: 3 hrs

One week of training in archaeological fieldwork. __Credit Hours: 3 hrs
_Prerequisite: ANTH135, ANTH140 and departmental permission

## ANTH 277 - Special Topics

An examination of topics in anthropology not normally covered in the curriculum. Students may elect this course several times, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: ANTH135

## ANTH 278-Special Topics

An examination of topics in anthropology not normally covered in the curriculum. Students may elect this course several times, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: ANTH135

## ANTH 279-Special Topics

An examination of topics in anthropology not normally covered in the curriculum. Students may elect this course several times, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: ANTH135

## ANTH 309-Culture and Personality

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.. __Credit Hours: 3 hrs _Prerequisite: SOCL105 or ANTH135 _Notes: Not open to those with credit in SOCL309

## ANTH 329 - Medical Anthropology

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. __Credit Hours: 3 hrs _Prerequisite: ANTH135 or department permission

## ANTH 260 - Introduction to

 Archaeological FieldworkComparative study of political systems in various societies, local-level politics, government and law; examined from an anthropological perspective. __Credit Hours: 3 hrs _Prerequisite: ANTH135 and sophomore standing

## ANTH 336-Social and Cultural Change

A survey of the theories and problems of change as they affect at the global, national and subcultural levels.. __Credit Hours: 3 hrs _Prerequisite: ANTH135 or SOCL105
_Notes: Not open to those with credit in SOCL336

## ANTH 338 - Anthropology of Religion

The cross-cultural study of religious belief and ritual in various societies. __Credit Hours: 3 hrs _Prerequisite: ANTH135 and sophomore standing

## ANTH 340 - Language and Culture

A study of the relation of language to social behavior and modes of thought in unilingual and multilingual speech communities.
__Credit Hours: 3 hrs _Prerequisite:
ANTH135 or LING201 or LNGE223

## ANTH 345-Qualitative Methods

A review and examination of social science research methods that entail fieldwork, participant observation, naturalistic experimentation and the analysis of cultural data. __Credit Hours: 3 hrs _Prerequisite: ANTH135 or SOCL105 or department permission _Notes: Not open to those with credit in SOCL345.

## ANTH 350 - Ancient Civilizations of Mesoamerica

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. __Credit Hours: 3 hrs _Prerequisite: ANTH 135 and sophomore standing

## ANTH 355 - Anthropology of Women

This course focuses on the lives of women and theories of their positions in diverse cultural contexts. Issues of gender are also explored. __Credit Hours: 3 hrs
_Prerequisite: ANTH135. _Cross-Listed: This course is cross-listed with WGST355.

## ANTH 360 - Archaeological Fieldwork

Intermediate training in archaeological fieldwork. _Credit Hours: 5 hrs _Prerequisite: ANTH135, ANTH140 and departmental permission

## ANTH 361 - Artifact Analysis

Principles and practical experience in archaeological laboratory recording and analysis of artifact attributes to address basic questions on chronology, site function and spatial patterns. __Credit Hours: 3 hrs _Prerequisite: ANTH135 and ANTH150

## ANTH 377-Special Topics

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. __Credit Hours: 1 hr _Prerequisite: ANTH135

## ANTH 378 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: ANTH135

## ANTH 379 - Special Topics

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. __Credit Hours:

## ANTH 385-Culture of Japan

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 crosscultural research are documented and discussed. __Credit Hours: 3 hrs _Prerequisite: ANTH135 or department permission

## ANTH 387-Cooperative Education in Anthropology

Practical experience in industrial, business or government settings that provides job skills.. __Credit Hours: 3 hrs _Prerequisite: 12 hours of anthropology, six of which must be at the $300-$ level or above _Notes: Offered on a credit/no-credit basis.

## ANTH 437 - Kinship and Social Structure

The comparative study of kinship and social structure in various societies. __Credit Hours: 3 hrs _Prerequisite: ANTH135, ANTH210 and one additional ANTH course at the 300level

## ANTH 439 - Seminar in Anthropological Theory

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. __Credit Hours: 3 hrs _Prerequisite: four courses in anthropology including ANTH140, ANTH200, ANTH210 and senior standing

## ANTH 460-Advanced Archaeological Fieldwork

Intensive training in archaeological fieldwork. __Credit Hours: 6 hrs

## ANTH 465-Political Economy in Anthropology

This history of how political economy has been used in anthropological research and a survey of political economic approaches to major anthropological topics. __Credit Hours: 3 hrs _Prerequisite: ANTH135 and ANTH210, sophomore standing

## ANTH 477-Special Topics

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.
_Credit Hours: 1 hr _Prerequisite:
ANTH135

## ANTH 478-Special Topics

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.

Credit Hours: 2 hrs _Prerequisite: ANTH135

## ANTH 479-Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
ANTH135

## ANTH 487-Cooperative Education in Anthropology

Practical experience in industrial, business or government settings that provides job skills.. __Credit Hours: 3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis

## Research in Anthropology

Directed reading and research on problems within the field of anthropology. _Credit Hours: 1 hr _Prerequisite: ANTH135 and department permission

## ANTH 498 - Individualized Reading and Research in Anthropology

Directed reading and research on problems within the field of anthropology. __Credit Hours: 2 hrs _Prerequisite: ANTH135 and department permission

## ANTH 499 - Individualized Reading and Research in Anthropology

Directed reading and research on problems within the field of anthropology. __Credit Hours: 3 hrs _Prerequisite: ANTH135 and department permission

## ART 100-Art Appreciation

The aim is to acquaint students with art philosophies, their elements, principles and values. _Credit Hours: 3 hrs _Notes: Nonart majors or minors only.

## ART 101 - Introduction to Art

An introductory course designed to develop understanding of the formal and conceptual aspects of the visual arts. Students will become familiar with art and artists from historical, contemporary, stylistic, and aesthetic perspectives. Emphasis will be on basic studio practices as a means of understanding visual language. No previous experience in art expected. _Credit Hours: 3 hrs

## ART 107-Art History Survey I

A survey of the development of the visual arts from cave art through the gothic period. __Credit Hours: 3 hrs

## ART 108 - Art History Survey II

A continuation of Art History Survey I from the Renaissance through modern times.
_Credit Hours: 3 hrs

## ART 109 - Survey of Non-Western Art

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. __Credit Hours: 3 hrs

## ART 122 - Two-Dimensional Design

A foundation course dealing with an analytical approach to the study of the elements of design: color, line, shape, value and texture. _Credit Hours: 3 hrs

## ART 123 - Drawing I

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. __Credit Hours: 3 hrs

## ART 124 - Drawing II

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. __Credit Hours: 3 hrs _Prerequisite: ART123

## ART 131 - Three-Dimensional Design

Basic study of three-dimensional structures and systems. __Credit Hours: 3 hrs

## ART 151 - Reason and Revolution

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.
__Credit Hours: 3 hrs _Notes: This course satisfies one art or one history requirement. See honors humanities courses.

## ART 165-Graphic Design for Nonmajors

Problems will explore fundamental design and basic production considerations and the development of a professional design thought process. __Credit Hours: 3 hrs

## ART 166-Ceramics for Nonmajors

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. __Credit Hours: 3 hrs

## ART 167-Jewelry for Nonmajors

A hands-on approach to provide students with the opportunity to develop artistic and technical skills with metal and other jewelry materials. Credit Hours: 3 hrs

## ART 168 - Photography for Non-Majors

This is an introductory course in film-based art black and white photography. It covers the basic tols of the medium, including camera use, film developing, and printing. The class is designed to alow students to become familiar with visual arts and the artistic process using the camera as a tool for personal expression. __Credit Hours: 3 hrs _Notes: Students must supply their own 35 mm film camera.

## ART 169 - Watercolor for Non-Majors

This course will introduce students to traditional and experimental watercolor techniques and processes. This course will provide students with studio experiences, artmaking and will explore both contemporary and historical watercolor painting through slides and lectures. __Credit Hours: 3 hrs

## ART 169L - Watercolor for Non-Majors

This course will introduce students to traditional and experimental watercolor techniques and processes. This course will provide students with studio experiences, artmaking and will explore both contemporary
and historical watercolor painting through slides and lectures. __Credit Hours: 3 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## ART 177 - Special Topics

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.
_Credit Hours: 1 hr _Prerequisite:
department permission

## ART 178 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## ART 179 - Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## ART 201 - Introduction to Graphic Design I

Projects examine two-dimensional typographic space; language sequence and information hierarchy; type families and their structure; typographic aesthetic; typographic history. Introduces appropriate tools.
Credit Hours: 3 hrs _Prerequisite:
ART122, ART123 and one art history course

## ART 205 - Introduction to Graphic Design II

Projects examine type methodology; complex typographic systems; rhetorical devices; word-image structures; typographic history and theory. Introduces appropriate tools. __Credit Hours: 3 hrs _Prerequisite: ART201

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. __Credit Hours: 3 hrs _Prerequisite: ART123 and ART124 or department permission

## ART 215 - History of 19th Century Art

Begins with a survey of European art in the late 18th century and concludes with PostImpressionism at the end of the 19th century. __Credit Hours: 3 hrs _Prerequisite: ART107 and ART108

## ART 215W - Nineteenth Century Art

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description. $\qquad$ Credit Hours: 3 hrs

## ART 216 - History of 20th Century Art

A survey of the visual arts of the 20th century, from Post-Impressionism through the latest contemporary developments.
__Credit Hours: 3 hrs _Prerequisite: ART215
or department permission

## ART 232-Representational Drawing

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.
__Credit Hours: 3 hrs _Prerequisite: ART124

## ART 235 - Introduction to Fibers

An introduction to fibers focusing on a broad range of fiber processes and techniques including surface design, weaving and threedimensional fibers. This course will introduce a contemporary to the fibers field, which will emphasize fundamental fiber processes and the creative development of ideas. __Credit Hours: 3 hrs _Prerequisite: ART122 and ART123

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ART 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ART 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ART 280 - Introduction to Furniture Design

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. __Credit Hours: 3 hrs _Prerequisite: ART131
Three-Dimensional Design, department permission.

## ART 300-Art Integration for the Elementary Teacher

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 __Credit Hours: 4 hrs _Concurrent Prerequisite: CURR304 _Notes: Nonart majors only.

## ART 302 - Intermediate Graphic Design I

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.

Credit Hours: 3 hrs _Prerequisite: ART205

## ART 303 - Intermediate Graphic Design II

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. __Credit Hours: 3 hrs _Prerequisite: ART205

## ART 304 - Beginning Photographic Imagery

Introduction to photography as an art form. Basic camera and darkroom techniques demonstrated, with emphasis on exhibition printing. __Credit Hours: 3 hrs _Prerequisite: ART122 and ART123 _Notes: Student must furnish own camera equipment.

## ART 305 - Printmaking

Acquaintance with graphic techniques; woodcut and silkscreen. __Credit Hours: 3 hrs _Prerequisite: ART123, ART124, ART122; art majors only

## ART 306 - Printmaking

Advanced graphic techniques with emphasis on development of individual style through experimentation with etching and processes. __Credit Hours: 3 hrs _Prerequisite: ART305; art majors only

## ART 307-Ceramics

Basic ceramics, including wheel throwing and handbuilding techniques, compounding earthenware and stoneware clay bodies, formulating glazes, firing electric and gas kilns. __Credit Hours: 3 hrs _Prerequisite: ART231 or department permission

## ART 308-Ceramics

Advanced ceramic techniques, emphasis on personal expression, compounding of individual clay bodies and glazes, loading
and firing of kilns. __Credit Hours: 3 hrs _Prerequisite: ART307; art majors only

## ART 310 - Sculpture

Exploratory experiences in volume and space; the use of clay, stone, wood, metal, etc. __Credit Hours: 3 hrs _Prerequisite: ART231; art majors only

## ART 311 - Sculpture

Continuing experiences in volume and space; further development of skills with sculpture materials and concepts. __Credit Hours: 3 hrs _Prerequisite: ART310; art majors only

## ART 313 - Painting

Painting problems; development of technique and concepts through experimentation with painting media. __Credit Hours: 3 hrs _Prerequisite: ART122 and ART124; art majors only

## ART 314 - Watercolor I

Intensive exploration of watercolor techniques with emphasis on developing individuality and self-expression related to the medium. __Credit Hours: 3 hrs _Prerequisite: ART122 and ART124; Art majors only

## ART 316 - Life Drawing

Advanced study problems; the human form as composition and design; varied media.
_Credit Hours: 3 hrs _Prerequisite:
ART210; art majors only

## ART 317-Teaching of Art

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.. __Credit Hours: 3 hrs _Prerequisite: junior standing _Notes: Not open to students on academic probation

## ART 320 - Jewelry

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. __Credit Hours: 3 hrs _Prerequisite: ART231 or department permission; art majors only

## ART 321 - Jewelry

Processes and techniques applied toward a professional development in jewelry design. Advanced processes, casting and setting of precious stones. __Credit Hours: 3 hrs _Prerequisite: ART320 or equivalent

## ART 324 - Design and Development of Public Works of Art

An experimental studio course in which students and instructors design, plan and execute urban environmental murals, sculpture, parks and malls. __Credit Hours: 3 hrs _Prerequisite: department permission

## ART 325 - Intermediate Photography I

An investigation of intermediate and advanced black and white techniques. Student continue to explore a conceptual approach to the medium while beginning to develop their own personal vision. The work of other photographers is considered to give students a better understanding of the photographic language. __Credit Hours: 3 hrs _Prerequisite: ART304; art major or department permission

## ART 326 - Intermediate Photography II

The contextual development of personal vision is emphasized through discussion of the student's work in relationship to established photographers' work. _Credit Hours: 3 hrs _Prerequisite: ART304

## ART 330-Computer Imaging

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. __Credit Hours: 3 hrs _Prerequisite: ART122, ART124 and department permission _Notes: Not open to freshmen or graduate students.

## ART 331 - Technology in Art Education

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. __Credit Hours: 3 hrs _Prerequisite: CURR305, department permission and admission to the College of Education _Notes: Course available to visual arts education majors only.

## ART 335 - American Painting and Sculpture Prior to World War II

A survey of American art, including European influences and the evolution of Native American characteristics. __Credit Hours: 3 hrs _Prerequisite: ART107 and ART108 or department permission

## ART 340 - History of Classical Art

A study of the art and architecture of the classical civilization of Greece and Rome.

Credit Hours: 3 hrs _Prerequisite: ART107
or department permission

## ART 341 - History of Renaissance Art

A history of Italian art from the ProtoRenaissance (about 1250 A.D.) through the period of mannerism (1600). __Credit Hours: 3 hrs _Prerequisite: ART107 or ART108

## ART 346 - Image Making I

Image making as it applies to the materials and processes of communicating specific visual concepts. Introduces a wide variety of materials and imaging methods. __Credit Hours: 3 hrs _Prerequisite: ART205

## ART 348 - Intermediate Graphic Design Workshop

Practicum dealing with various aspects of visual communication. __Credit Hours: 3 hrs _Prerequisite: ART302 and ART303

## ART 355-Weaving

An intermediate fibers class focusing on concepts using woven structures to explore historical and contemporary weaving. Fabrics will be investigated and created on the floor loom, which will be used as a tool for personal expression. __Credit Hours: 3 hrs _Prerequisite: ART235 and department permission; art majors only

## ART 356 - Intermediate Surface Design: Screen Printing

Intermediate fibers class focused on developing concepts through technical and creative solutions utilizing a broad range of materials and techniques. The techniques will range from low-tech to complex applications incorporating transparent and opaque pigments, thickened dye and discharge pastes. __Credit Hours: 3 hrs _Prerequisite: ART235 and department permission; art majors only

## ART 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ART 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ART 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ART 387-Cooperative Education in Art

Employment in a graphic design firm, studio, or agency with an opportunity for practical design experience. Placement approval required by graphic design area. __Credit Hours: 3 hrs _Prerequisite: department permission

## ART 405 - Printmaking

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. __Credit Hours: 3 hrs _Prerequisite: ART306; art majors only

## ART 406-Printmaking

An advanced laboratory course for art majors taking their sequence in graphics. Projects could include lithography, etching and aquatint processes, plus individual assignments. __Credit Hours: 3 hrs _Prerequisite: ART405; art majors only

## ART 407-Ceramics

Intensive work for art majors specializing in ceramics with an emphasis on larger-scaled, increasingly complex techniques and forms. Historical and contemporary works examined. __Credit Hours: 3 hrs _Prerequisite: ART308; art majors only

## ART 408-Ceramics

Summation of the undergraduate ceramics program; emphasis on individual style, production techniques, studio management and exhibition programs. __Credit Hours: 3 hrs _Prerequisite: ART407; art majors only

## ART 410 - Metal Casting Techniques

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. __Credit

Hours: 3 hrs _Prerequisite: ART310 or department permission

## ART 411 - Sculpture

Advanced sculpture problems, including steel and open-form construction; intensive study of contemporary methods and techniques of sculpture. __Credit Hours: 3 hrs
_Prerequisite: ART311 or department permission; art majors only

## ART 412 - Sculpture

Advanced sculpture problems; development of individual style in three-dimensional form.
Credit Hours: 3 hrs _Prerequisite:
ART411; art majors only

## ART 413 - Painting

Further development of painting skills and aesthetic understanding of the twodimensional surface complex. Emphasis on development of individual style. __Credit Hours: 3 hrs _Prerequisite: ART313; art majors only

## ART 414 - Watercolor II

Further development of watercolor skills and aesthetic understanding of the twodimensional surface complex. Emphasis on development of individual style. __Credit Hours: 3 hrs _Prerequisite: ART314; art majors only

## ART 416 - Art Methods and Materials

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. __Credit Hours: 3 hrs _Prerequisite: ART317, junior standing; admission to the teacher education program

## ART 419 - Life Drawing

The study of the human form as part of the development of a personal style in art
__Credit Hours: 3 hrs _Prerequisite:

## ART 421 - History of Asian Art

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. __Credit Hours: 3 hrs _Prerequisite: ART109 or department permission

## ART 422-Art of East Asia

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. __Credit Hours: 3 hrs _Prerequisite: ART109 or department permission

## ART 423 - Watercolor III

Further development of individual style in watercolor. __Credit Hours: 3 hrs _Prerequisite: ART414; art majors only

## ART 424 - Watercolor IV

Further development of individual style in watercolor. __Credit Hours: 3 hrs _Prerequisite: ART423; art majors only

## ART 425 - Arts of Africa

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. __Credit Hours: 3 hrs _Prerequisite: junior or senior status or department permission

## ART 426 - Medieval Art History

The development of medieval art from the Early Christian through Gothic periods. _Credit Hours: 3 hrs _Prerequisite: ART107 or department permission

## ART 427 - Baroque Art

Principal developments in Italian and northern art of the 17th century. Emphasis on major themes and aesthetic problems.
__Credit Hours: 3 hrs _Prerequisite: ART108 or department permission

## ART 428 - Seminar in 20th Century Art

Readings, reports, and group discussions on 20th century art. Topics may vary. __Credit Hours: 3 hrs _Prerequisite: ART216 or art major

## ART 429 - History of American Architecture

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. __Credit Hours: 3 hrs _Prerequisite: ART108 or department permission

## ART 430-Mesoamerican Art

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. __Credit Hours: 3 hrs _Prerequisite: junior/senior standing and department permission

## ART 432 - Drawing III

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. __Credit Hours: 3 hrs _Prerequisite: ART210; art majors only

## ART 436 - Women in Art

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. __Credit Hours: 3 hrs _Prerequisite: ART108 or department permission _CrossListed: This course is cross-listed with WGST436

## ART 439 - Life Drawing

The study of the human form as part of the development of a personal style of art.
__Credit Hours: 3 hrs _Prerequisite: ART419
_Cross-Listed: art majors only

## ART 440 - Art Since 1945

A study of contemporary art from 1945 to the present with an intensive concentration on recent developments. A continuation of ART216. __Credit Hours: 3 hrs
_Prerequisite: ART216

## ART 442-Jewelry

Advanced problems such as raising metal into hollow forms, cutting and polishing of gem stones, gem identification and advanced metal joining and forming processes.
_Credit Hours: 3 hrs _Prerequisite:
ART321; art majors only

## ART 443-Jewelry

Individual advanced problems in jewelry and metalworking. __Credit Hours: 3 hrs
_Prerequisite: ART442; art majors only

## ART 449 - Photography Portfolio

Development of a unified body of work representing the undergraduate photographic experience. __Credit Hours: 3 hrs _Prerequisite: ART409

## ART 450 - Digital Printing for Fibers

Advanced fibers class focusing on digital printing onto a variety of fabrics using digital photography and computer programs as a tool for further manipulation. The investigation of
concepts and use of pattern, imagery and meaning onto fabrics will further transform and manipulate the fabric surface. __Credit Hours: 3 hrs _Prerequisite: department permission and ART355/356

## ART 455 - Advanced Fibers

The primary focus is on developing a strong body of work created using fiber or fiber related techniques culminating in portfolio development. __Credit Hours: 3 hrs _Prerequisite: ART355/356 and department permission

## ART 456 - Color, Dye, and Fiber

A study of systematic dye testing via lectures and lab work; emphasis on understanding color in the textile medium. __Credit Hours: 3 hrs _Prerequisite: ART235 or department permission

## ART 460 - Advanced Graphic Design

Advanced work in visual communications; students are exposed to theories, philosophies, aesthetics, techniques and experiences used in complex visual communication environments __Credit Hours: 3 hrs _Prerequisite: ART302 or ART303

## ART 462 - Image Making II

Image making as applied to advanced communication concepts. Students are exposed to theories, philosophies, aesthetics, techniques and experiences used in visual message building. __Credit Hours: 3 hrs _Prerequisite: ART346; ART302 or ART303

## ART 464 - Advanced Graphic Design Workshop

Special problems with various aspects of visual communication of particular interest to advanced visual communication students. __Credit Hours: 3 hrs _Prerequisite: ART302 and ART303

## ART 477-Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ART 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ART 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ART 480 - Painting

Further development of individual painting style. __Credit Hours: 3 hrs _Prerequisite: ART413; art majors only

## ART 481 - Painting

Further development of individual painting style. __Credit Hours: 3 hrs _Prerequisite: ART480; art majors only

## ART 487 - Cooperative Education in Art

Continuation of ART387. __Credit Hours: 3 hrs _Prerequisite: ART387; approval by graphic design area

## ART 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not have regular course work. __Credit Hours: 1 hr _Prerequisite: department permission

## ART 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not have regular course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## ART 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not have regular course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## ASTR 105-Exploration of the Universe

An introductory astronomy course for students in any curriculum. The solar system, stars, galaxies, cosmology and the history of astronomy are covered.
__Credit Hours: 3 hrs _Prerequisite: MATH110 or placement_Notes: ASTR204 must be taken concurrently with this course to meet General Education requirements.
Students may not receive General Education credit for both ASTR105 and ASTR205. Cannot be applied toward a physics major or minor.

Course Revisions: This course was previously listed at ASTR 203.

## ASTR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ASTR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ASTR 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ASTR 204 - Astronomical Investigations

A laboratory course for the beginning astronomy student. The techniques and
concepts of astronomy. __Credit Hours: 1 hr _Lecture/Lab Hours: Two hours of laboratory per week. _Corequisites: ASTR203 or ASTR205

## ASTR 205 - Principles of Astronomy

A survey of astronomy and astrophysics for Science, Integrated Science and Secondary Education majors and minors. The course covers the solar system, stars, galaxies, elementary celestial mechanics, light and cosmology. Students will solve appropriate problems and develop models that pertain to the topics. __Credit Hours: 4 hrs _Prerequisite: MATH110 or placement _Notes: ASTR204 must be taken concurrently with this course for General Education credit. Students may not receive General Education credit for both ASTR 105 and ASTR205.

## ASTR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ASTR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ASTR 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ASTR 297 - Independent StudyAstronomy

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 1 hr _Prerequisite: approval of the faculty member and department permission

## ASTR 298 - Independent StudyAstronomy

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 2 hrs
_Prerequisite: approval of the faculty member and department permission

## ASTR 299 - Independent StudyAstronomy

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 3 hrs _Prerequisite: approval of the faculty member and department permission

## ASTR 311 - Astronomy Projects for Elementary Teachers

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.
Credit Hours: 3 hrs _Prerequisite:
ASTR203 or ASTR205

## ASTR 315-Observational Astronomy

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.
__Credit Hours: 3 hrs _Prerequisite:
ASTR203 or ASTR205

## ASTR 370 - Astrophysical Concepts

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. __Credit Hours: 3 hrs _Prerequisite: PHY224; or PHY222 and MATH121

## ASTR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## ASTR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ASTR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ASTR 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## ASTR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## ASTR 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ASTR 497 - Independent Study-

 AstronomyAn intensive study of a problem or group of
problems under the direction of a department faculty member. __Credit Hours: 1 hr _Prerequisite: approval of the faculty member and department permission

## ASTR 498 - Independent StudyAstronomy

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 2 hrs
_Prerequisite: approval of the faculty member and department permission

## ASTR 499 - Independent Study-

 AstronomyAn intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 3 hrs _Prerequisite: approval of the faculty member and department permission.

## ASTR 590 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
__Credit Hours: 1 hr _Notes: This is a
graduate course in an undergraduate program.

## ASTR 591 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## ASTR 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special
topics may be used on a degree program. Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## ATHL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ATHL 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATHL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATHL 261 - Techniques of Officiating I

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. __Credit Hours: 2 hrs

## ATHL 262 - Techniques of Officiating II

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.
__Credit Hours: 2 hrs

## ATHL 263 - Theory of Football

Lecture course covering the basic fundamentals and styles of offensive and defensive football. $\qquad$ Credit Hours: 2 hrs

## ATHL 264 - Theory of Soccer

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. __Credit Hours: 3 hrs

## ATHL 265 - Theory of Baseball

The fundamental skills and strategy of baseball for the prospective teacher and coach. Credit Hours: 2 hrs

## ATHL 267-Theory of Basketball

Lecture course covering the basic fundamentals and styles of offensive and defensive basketball. __Credit Hours: 2 hrs

## ATHL 268 - Theory of Coaching Swimming

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. __Credit Hours: 2 hrs

## ATHL 269 - Theory of Track and Field

The fundamental techniques for coaching and administering programs of track and field for the prospective teacher and coach. __Credit Hours: 2 hrs
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ATHL 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATHL 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## ATHL 317 - Theory of Coaching Individual Sports for Women

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. __Credit Hours: 2 hrs

## ATHL 318 - Theory of Coaching and Teaching Women's Team Sports

Coordinates, correlates and supplements skills and coaching techniques introduced in activity courses. Field sports, volleyball and basketball. _Credit Hours: 2 hrs

## ATHL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## ATHL 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## ATHL 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 1 hr _Prerequisite: department permission

## ATHL 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATHL 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATHL 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## ATHL 277 - Special Topics

## ATHL 378 - Special Topics

An exploration and study of topics not

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATHL 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATM 105 - Integrated Arts

The application of design elements and principles to human and contemporary environmental needs __Credit Hours: 3 hrs _Lecture/Lab Hours: Laboratory required.

## ATM 118 - Apparel Studio

Apparel construction using a commercial pattern. Emphasis is placed on fabric selection, fit and techniques. __Credit Hours: 3 hrs

## ATM 119 - Early American Textiles

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. __Credit Hours: 3 hrs

## ATM 135-Cultural Study of Dress

A study of the social, psychological and physical aspects of dress as related to culture, society and the individual. _Credit Hours: 3
hrs

## ATM 145 - Introduction to Apparel and Textile Merchandising

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. __Credit Hours: 3 hrs

## ATM 177 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## ATM 178 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATM 179 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATM 200 - Aesthetics and Design for the Apparel Industry

This course will explore current and historical trends in design and aesthetics within and related to the apparel and merchandising industry. Concept development in visual design is the primary focus. Students will work individually and in teams to develop concepts and presentations in multiple media. __Credit Hours: 3 hrs

## ATM 210 - Display Techniques

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. __Credit Hours: 3 hr _Prerequisite: ATM105

## ATM 212 - Textile Science I: Fibers \& Yarns

This course is an intensive study of natural and man-made fibers and yarns. Both fiber production methods and properties are discussed. Yarn classifications, construction and production are also taught. Both swatch book exercise and laboratory practice are utilized for hands on training. All fibers and yarns used in apparel, furnishing and technical textiles are covered. __Credit Hours: 3 hrs

## ATM 235 - Introductory Textiles

The analytical study of fibers, yarns, fabrics and finishes with emphasis on the performance of apparel and interiors fabrics. __Credit Hours: 3 hrs _Lecture/Lab Hours: Laboratory required.

## ATM 255 - Apparel Analysis

A study of the components of apparel at the various price and quality levels. Emphasis placed on standard terminology necessary to describe/evaluate apparel. __Credit Hours: 3 hrs _Lecture/Lab Hours: Laboratory required. _Prerequisite: ATM235

## ATM 265 - Merchandising of Interior Furnishings

Study of fashion marketing practices, buying techniques, and promotional activities as they relate to home furnishings industries __Credit Hours: 3 hrs _Notes: Field trips required.

## ATM 271 - Woven Structures and Design

Practical applications in current technologies in woven fabric design and construction, including the history of technological developments in the design and development of woven structures.

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## ATM 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATM 279 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATM 302 - Fashion Manufacturing Techniques

Experiences and analysis of apparel and textile product production. Includes selection of commercial equipment and textiles.
__Credit Hours: 3 hrs _Prerequisite: ATM118

## ATM 312 - Textile Science II: Fabric Formation, Dyeing and Finishing

This course deals with the formation of fabric by different technologies including weaving, kintting, braiding and nonwoven. Color science and textile dyeing are also taught.
__Credit Hours: 3 hrs _Prerequisite: sophomore, junior or senior standing _Concurrent Prerequisite: ATM145 and ATM212

## ATM 345 - Merchandise Planning and Control

Applications of merchandising mathematical concepts to buying functions and activities. Major focus on problem solving. __Credit Hours: 3 hrs _Prerequisite: ATM145 _Notes: Field trips required.

## ATM 355 - Application of Merchandising Practices

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. _Credit Hours: 3 hrs _Prerequisite:
COSC101 or IHHS224

## ATM 371 - Textiles for Interior Design

Textiles for Interior Design is a study of textile fibers, yarns and fabrics that are used in interior furnishing. Selection of textile for interior based on durability, aesthetics, safety and environmental issues are discussed. The course includes lab sections on fiber identification and fabric analysis for properties and design. __Credit Hours: 3 hrs _Prerequisite: junior and senior students only

## ATM 372 - Design and Production of a Fashion Show

Students work as a team to design, develop and produce a fashion show. Emphasis is on project development, including budget, scheduling, communication, management, leadership and sysnthesis of program area skills. __Prerequisite: ATM145 _Notes: Students may repeat this course.

## ATM 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## ATM 378 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATM 379 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

ATM 380 - Fashion of the Haute Couture
A detailed study of 20th-century American
and European fashion and its relationship to identifiable costumes of the past with emphasis on haute couture __Credit Hours: 3 hrs _Notes: Field trip required.

## ATM 390 - Visual Merchandising

Analysis of visual media and techniques used in presentation of merchandise in a variety of settings. Laboratory participation integrates theory and practice. __Credit Hours: 3 hrs _Prerequisite: ATM105

## ATM 392 - Pattern Design

Principles of pattern making, and special problems in clothing construction and design. __Credit Hours: 3 hrs _Prerequisite:
ATM118 or equivalent

## ATM 404 - Textiles for Merchandising

Recent technological developments in textiles; textile testing techniques. __Credit Hours: 3 hrs _Prerequisite: ATM235 and one laboratory science course

## ATM 437 - Professional Seminar

Exploration of professional aspects of merchandising. Emphasis on career preparation. Presentation of fashion related enterprises. Lectures by specialists.. __Credit Hours: 3 hrs _Prerequisite: senior standing; ATM355 can be taken concurrently _Notes: Field trips required

## ATM 439 - Fashion Markets

Comprehensive overview of the world fashion markets with emphasis on their development, operation and contribution; includes a trip to one fashion-related market.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## ATM 460-Tailoring

Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations. __Credit Hours: 3 hrs _Prerequisite: ATM118 or equivalent

## ATM 477 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hrs _Prerequisite: department permission

## ATM 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## ATM 479 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## ATM 487 - Field Experience

Supervised field experiences working with family social agencies and/or businesses in the area of specialization emphasizing professional competencies and selfevaluation. Sections of course offered for specialization areas as needed. International students need a work permit before registration. __Credit Hours: 3 hrs _Prerequisite: department permission-senior standing

## ATM 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hrs _Prerequisite: department permission

## ATM 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course Credit Hours: 2 hrs _Prerequisite: department permission

## ATM 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer
a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## ATTR 201 - Human Anatomy for Sports Medicine

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. __Credit Hours: 3 hrs _Prerequisite: BIOL105 or BIOL110, departmental permission and 2.5 GPA in sports medicine _Cross-Listed: This course is cross-listed with SPMD201

## ATTR 202 - Human Physiology for Sports Medicine

Required lecture course for sports medicine majors that examines the structure and function of the human body. __Credit Hours: 3 hrs _Prerequisite: BIOL105, departmental permission and 2.5 GPA in sports medicine; sophomore, junior or senior standing _CrossListed: This course is cross-listed with SPMD202

## ATTR 219 - Introduction to Athletic Training

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. __Credit Hours: 3 hrs _Prerequisite: SPMD119

## ATTR 225 - Practicum I

A supervised educational experience in athletic training under the supervision of a certified athletic trainer. __Credit Hours: 2 hrs _Prerequisite: GPA 2.8, SPMD119 and department permission

## ATTR 290 - Practicum II

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. _Credit Hours: 2 hrs _Prerequisite: GPA 2.9, Athletic Training major and ATTR225; Corequisites:

## ATTR 295-Assessment of Lower Body Injuries

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. __Credit Hours: 3 hrs _Prerequisite: ATTR225, ATTR201/SPMD201 and ATTR202/SPMD202 _Corequisites: ATTR326

## ATTR 296 - Assessment of Upper Body Injuries

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. __Credit Hours: 3 hrs _Prerequisite: ATTR225, ATTR201/SPMD201 and
ATTR202/SPMD202 _Corequisites: ATTR290

## ATTR 310 - Emergency Care in Athletic Training

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 an automatic defibrillator. Credit Hours: 2 hrs _Prerequisite: HLED210 and Athletic Training major

## ATTR 321 - Therapeutic Modalities for Athletic Trainers

A detailed study of theory, applications, physiological effects, and indications and contradictions of commonly used therapeutic
modalities in the practice of athletic training.
Credit Hours: 2 hrs _Prerequisite: ATTR290, ATTR296, Athletic Training major, junior standing _Corequisites: ATTR326

## ATTR 322 - Therapeutic Exercise for Athletic Trainers

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. __Credit Hours: 3 hrs _Prerequisite: ATTR219 and ATTR290

## ATTR 326 - Practicum III

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. __Credit Hours: 1 hr _Prerequisite: ATTR225, ATTR290, Athletic Training major, junior or senior standing; _Corequisites: ATTR321 and ATTR295

## ATTR 327 - Practicum IV

An advanced supervised educational experience in athletic training under the supervising of an approved clinical instructor in the Athletic Training Education Program.
Credit Hours: 1 hr _Prerequisite:
ATTR326, Athletic Training major, department permission and junior standing; _Corequisites: ATTR322 and ATTR419

## ATTR 390 - Senior Practicum

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. __Credit Hours: 2 hrs _Prerequisite: candidacy and department permission; 3.0 GPA

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. __Credit Hours: 3 hrs _Prerequisite: ATTR295; candidacy

## ATTR 420 - Administrative and Legal Aspects of Athletic Training

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. __Credit Hours: 2 hrs _Prerequisite: ATTR326, ATTR327, senior standing and department permission _Corequisites: ATTR390 and ATTR485

## ATTR 485 - Seminar in Athletic Training

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 procedures, and certification examination preparation. The course delivery includes computer simulations, role-playing, collaborative interaction and individual activities. __Credit Hours: 2 hrs _Prerequisite: candidacy, junior or senior standing

## ATTR 490 - Internship - Athletic Training

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. __Credit Hours: 8 hrs _Prerequisite: candidacy and department permission.

## AVT 100 - Introduction to Air Transportation

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. __Credit Hours: 3 hrs

## AVT 110 - Aircraft Maintenance I

The functions and roles of maintenance procedures in an aviation maintenance organization structure. Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week.

## AVT 120 - Flight Operations I

The role of aviation in general aviation and the interface with regulatory agencies and parent organizations. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week.

## AVT 170 - Aviation Ground Instruction

Basic ground instruction in aerodynamics, navigation, federal aviation regulations, meteorology, and flight procedures directed toward preparation for the private pilot written examination. __Credit Hours: 3 hrs

## AVT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## AVT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## AVT 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 208 - Aviation Human Factors

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.
__Credit Hours: 3 hrs

## AVT 215-Aviation Weather

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. __Credit Hours: 3 hrs _Prerequisite: course available to Aviation Flight Technology or Aviation Management majors/minors only.

## AVT 220 - Flight Operations II

In-depth study of the functions and organization of operations and the relationship with the other departments within an aviation organization. __Credit Hours: 3 hrs _Prerequisite: AVT120

## AVT 222 - Introduction to Automation in Aviation

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. __Credit Hours: 3 hrs _Notes: Restricted to Aviation Flight Technology majors
flight operations to achieve solo flights in accordance with Federal Aviation Administration requirements. The student will then receive dual instruction and conduct solo practice in extended cross-country flight. flight maneuvers, and be prepared to take the oral and flight examination for the Private Pilot Certificate. __Credit Hours: 4 hrs _Prerequisite: Student Pilot Certificate: FAA Class I Medical; students in Aviation Flight Technology or Aviation Management Technology only

## AVT 263 - Aircraft Systems

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 __Credit Hours: 3 hrs _Prerequisite: Available to aviation flight technology and aviation management technology majors only.

## AVT 271 - Basic Flight III

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. __Credit Hours: 2 hrs _Prerequisite: AVT261

## AVT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## AVT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## AVT 255 - Private Pilot Certification

The student will receive dual instruction in

## AVT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 285-Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## AVT 286 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## AVT 287 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 303-Aviation Law and Insurance

Overview of legal considerations in general aviation, government agencies exercising control, regulations, laws, advisery information and insurance requirements and considerations. __Credit Hours: 3 hrs

## AVT 313 - Aviation Industry Regulations

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. __Credit Hours: 3 hrs

## AVT 315-Airport Management

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. __Credit Hours: 3 hrs

## AVT 320 - Aviation Safety

A study of basic aviation safety concepts related to accident causation and prevention. The course will provide an overview of current safety issues relative to risk management, human factors, aviation security and safety education. In addition, resources and techniques needed for the development and implementation of aviation safety programs will be discussed. __Credit Hours: 3 hrs _Prerequisite: AVT170

## AVT 321 - Cockpit and Crew Resource Management

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. __Credit Hours: 3 hrs

## AVT 322 - System Safety in Aviation

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. Credit Hours: 3 hrs _Prerequisite:
AVT313, sophomore standing

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.. _Credit Hours: 2 hrs _Prerequisite: AVT170 _Notes: Restricted to aviation flight technology majors

## AVT 342-Commercial Ground Instruction

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 __Credit Hours: 2 hrs _Notes: Restricted to aviation flight technology majors .

## AVT 355 - Instrument Pilot Certification

The student will receive instruction in crosscountry and instrument flying techniques, including radio navigation, instrument approaches, and IFR operations. This course will prepare the student for the FAA instrument pilot written, oral and practical examinations to achieve instrument pilot certification. __Credit Hours: 4 hrs _Prerequisite: AVT251; students in Aviation Flight Technology or Aviation Management Technology only; department permission required for Aviation Management majors

## AVT 361 - Commercial/Complex Flight Instruction

The student will receive dual instruction to introduce commercial flight operations. The student will also complete instruction in complex aircraft for the purpose of preparing for Commercial Pilot Certification. __Credit Hours: 2 hrs _Prerequisite: AVT351; students in Aviation Flight Technology only

## AVT 371-Commercial Certification

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. The student will complete the oral examinations and
flight tests required for this certificate and rating. __Credit Hours: 2 hrs _Prerequisite: AVT361; students in Aviation Flight Technology only

## AVT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## AVT 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## AVT 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 382 - Flight Instructor Ground Instruction

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. __Credit Hours: 3 hrs _Notes: Restricted to aviation flight technology majors.

## AVT 384 - Multi-engine/Aircraft Systems Ground Instruction

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. __Credit Hours: 3 hrs _Notes: Restricted to aviation flight technology majors..
in Aviation Flight Technology only

## AVT 387-Co-operative Education in

## Aviation Technology

A minimum of three to four months of fulltime 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 419-High Airspeed <br> Aerodynamics/High Altitude Flight

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 __Credit Hours: 3 hrs _Notes: Restricted to aviation flight technology majors .

## AVT 422 - Senior Seminar in Aviation Management

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 426 - Multi-Engine Flight Instruction

This course consists of the flight training and ground training requirements to meet FAA airplane class rating for multi-engine land. This course is conducted off campus by the approved flight training provider. __Credit Hours: 3 hrs _Prerequisite: students in Aviation Flight Technology only

## AVT 427 - Flight Instructor: Airplane

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. __Credit Hours: 2 hrs _Prerequisite: students

## AVT 428 - Flight Instructor: Instrument

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. __Credit Hours: 2 hrs
_Prerequisite: AVT427; students in Aviation
Flight Technology only

## AVT 429 - Flight Instructor: Multi-Engine

This course consists of the flight training requirements for the student to meet Federal Aviation Administration standards for the rating of Certified Flight InstructorMultiengine. __Credit Hours: 2 hrs _Prerequisite: AVT428; students in Aviation Flight Technology only

## AVT 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## AVT 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## AVT 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 487-Co-operative Education in Interdisciplinary Technology

A minimum of three to four months of fulltime 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## AVT 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr _Prerequisite: department permission

## AVT 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## AVT 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## BIO 105 - Introductory Biology for Nonmajors

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: The course consists of two one-hour lectures, one one-hour recitation and three hours of laboratory each week _Notes: Not open to students with credit in BIO110 and/or BIO120.

## BIO 107 - Introduction to Environmental Science

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with ESSC107

## BIO 110 - Introductory Biology I

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. __Credit Hours: 5 hrs _Lecture/Lab Hours: Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week _Prerequisite: BIO105 or VTP1 _Notes: BIO110 is required for students taking a major or minor in biology.

## BIO 120 - Introductory Biology II

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. __Credit Hours: 5 hrs _Lecture/Lab Hours: Course meets for three hours of lecture, one hour of discussion and three hours of laboratory each week _Prerequisite: C- or better in BIO110 _Notes: BIO120 is required for students taking a major or minor in biology.

## BIO 130 - Biology of Plants

An introduction to the plant kingdom for non-biology majors. The biology of plants is explored from the cellular through wholeorganism levels of organization, focusing on the roles of diverse plant groups in our environment. __Credit Hours: 4 hrs _Notes: Three one-hour lectures plus three hours of laboratory experience. Does not count toward the biology major or minor.

BIO 140 - Biology of Animals

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. __Credit Hours: 4 hrs

## BIO 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## BIO 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## BIO 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BIO 205 - Field Biology

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. __Credit Hours: 4 hrs

## BIO 215 - Plants and People

A study of the characteristics, cultural history, and current uses of plants that yield food, fiber, pharmaceuticals, and industrial products. Emphasis is placed on the roles of plants in the development of civilization. Topics such as genetically engineered food and sustainable agriculture are also discussed.
__Credit Hours: 3 hrs _Cross-Listed:

BIOT504

## BIO 226-Global Ecology and the Environment

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. __Credit Hours: 4 hrs _Prerequisite: BIO107/ESSC107, BIO105, or BIO110

## BIO 251 - Human Anatomy and Physiology I

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. __Credit Hours: 3 hrs _Prerequisite: High school Biology

## BIO 252 - Human Anatomy and Physiology II

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. __Credit Hours: 3 hrs
_Prerequisite: BIO251

## BIO 255 - Human Genetics

A lecture course emphasizing fundamental concepts of human genetics specifically designed to provide the non-biology major a framework to understand and assess recent advances and ethical issues concerning medical genetics, molecular diagnostics and genetic engineering. __Credit Hours: 3 hrs _Prerequisite: BIO 105 or BIO110

Introduces the types, characteristics, putative causes and current treatments of cancer.
Credit Hours: 2 hrs _Prerequisite: BIO105 or BIO110

## BIO 257 - Human Embryonic <br> Development

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.
__Credit Hours: 3 hrs _Prerequisite: BIO105, BIO110 or BIO251

## BIO 258 - Germs, Plagues and Human Infections

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. __Credit Hours: 3 hrs _Prerequisite: BIO105 or BIO110 or BIO251

## BIO 259 - Biology of Aging

The study of the aging process at the molecular, cellular, tissue and systems level of organization. Theories of aging will be considered. _Credit Hours: 2 hrs _Prerequisite: BIO105

## BIO 269 - Biology of Sex and Gender

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. __Credit Hours: 3 hrs _Prerequisite: $\mathrm{BIO} 105, \mathrm{BIO} 110$ or BIO251 _Cross-Listed: This course is cross-listed with WGST269

## BIO 277 - Special Topics

An examination of topics in biology not
covered in other department offerings. Students may elect this course more than once, provided different topics are studied.
__Credit Hours: 1 hr _Prerequisite:
department permission

## BIO 278 - Special Topics

An examination of topics in biology not covered in other department offerings. Students may elect this course more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## BIO 279 - Special Topics

An examination of topics in biology not covered in other department offerings. Students may elect this course more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite:
department permission

## BIO 301 - Genetics

A lecture course emphasizing the basic principles of inheritance with their application to plants and animals. __Credit Hours: 3 hrs _Prerequisite: C - or better in BIO120

## BIO 305-Cell and Molecular Biology

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. __Credit Hours: 3 hrs _Prerequisite: CHEM123/124 and C- or better in BIO301

BIO 306 - Cell and Molecular Biology and Genetics Laboratory
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. __Credit

Hours: 2 hrs _Prerequisite: C- or better in BIO301 _Prerequisite/Corequisite: BIO305 _Cross-Listed: BIO306W

## BIO 306W - Cell and Molecular Biology and Genetics Laboratory

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. _Click here for course description. __Credit Hours: 2 hrs _Prerequisite: C- or better in BIO301
_Prerequisite/Corequisite: BIO305

## BIO 310 - Ecology

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. _Credit Hours: 3 hrs _Prerequisite: C- or better in BIO120

## BIO 311 - Laboratory in Ecology

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. __Credit Hours: 2 hrs _Prerequisite/Corequisite: BIO310
_Cross-Listed: BIO311W

## BIO 311W - Laboratory in Ecology

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 2 hrs
_Prerequisite/Corequisite: BIOL310 _Cross-
Listed: BIO311

## BIO 315 - Evolution

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. __Credit Hours: 3 hrs _Prerequisite: C- or better in BIO301

## BIO 326 - Human Physiology

A study of the functioning of the human body. Lecture, laboratory and demonstration. Credit Hours: 3 hrs _Prerequisite: BIO105 or BIO120 or BIO140

## BIO 328 - Introductory Microbiology

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. __Credit Hours: 3 hrs _Prerequisite: BIO105 and CHEM121; or BIO251; or SPMD 202; or BIO120 and all prerequisites require a C- or better grade _Notes: Does not apply on the curriculum in clinical laboratory sciences, but will count as an elective towards the biology major or minor

## BIO 330 - Neuroanatomy

A lecture/laboratory course concerned with the study of the human nervous system, lesions and resulting disabilities. __Credit Hours: 3 hrs _Prerequisite: BIO252 or BIO326

## BIO 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## BIO 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## BIO 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BIO 387 - Cooperative Education in Biology

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology of technology. The program consists of two work experiences (BIO395/495) alternating with full-time attendance at the University. __Credit Hours: 3 hrs _Prerequisite: Junior Standing _Notes: Admittance to program by application only. Graded on a credit/no-credit basis.

## BIO 406 - The Nature of Science

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. __Credit Hours: 1 hr _Prerequisite: C- or better in BIO301; Department permission required for science majors or minors from other programs. _Cross-Listed: ESSC406, CHEM406, PHY406

## BIO 410 - Limnology

A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.
__Credit Hours: 3 hrs _Prerequisite: BIO310
and BIO311 _Cross-Listed: BIO510

## BIO 411 - Animal Physiological Ecology

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. $\qquad$ Credit

Hours: 3 hrs _Prerequisite: BIO305 or BIO310 _Cross-Listed: BIO511

## BIO 412 - Biogeography

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 and ESSC108, ESSC202, ESSC110 or ESSC111

## BIO 413 - Wetland Ecosystems

Advanced field ecology course in the theory and methods of study of wetland ecosystems. __Credit Hours: 3 hrs _Prerequisite: BIO310 and BIO311 _Cross-Listed: BIO513

## BIO 414 - Terrestrial Ecosystems

Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems. __Credit Hours: 3 hrs _Prerequisite: BIOL310 and BIOL311 _Cross-Listed: BIO514

## BIO 415 - Microbial Ecology

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. __Credit Hours: 3 hrs _Prerequisite: BIO425

## BIO 425-General Microbiology

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. __Credit Hours: 5 hrs _Prerequisite: C- or better in BIO301; and CHEM270 or CHEM372 _Notes: Not open to those who take BIO328. CHEM451 is highly recommended.

## BIO 426 - Immunobiology

Cellular and molecular responses to immunogens; primary and peripheral immune organs; T-cells and B-cells in cell-mediated and humoral immunity, immune regulation and mechanisms; hypersensitivity; immunity against microbial infectious agents; antigen/antibody reactions in vitro used in research and diagnostics._Credit Hours: 3 hrs _Prerequisite: BIO305

## BIO 429 - Bacterial Pathogenesis

A lecture course that examines the mechanisms of bacterial pathogenesis. Emphasis will be placed on host-bacterial interactions that lead toward bacterial infection. __Credit Hours: 3 hrs
_Prerequisite: BIO425

## BIO 443 - Developmental Biology

A course on the molecular aspects of early development, cytodifferentiation, cell communication, morphogenesis, pattern formation and developmental genetics. __Credit Hours: 3 hrs _Prerequisite: BIO305

## BIO 446 - Genome Analysis

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. __Credit Hours: 4 hrs
_Prerequisite: BIO305, BIO306 or BIO548 _Cross-Listed: BIO546

## BIO 447 - Scanning Electron Microscopy

A lecture-laboratory course that provides the basic theory and practice of scanning electron microscopy. Lectures are coordinated with individualized instruction on laboratory equipment. Students design and conduct an original research project that is presented in both written and oral forms at the end of the semester. __Credit Hours: 3 hrs
_Prerequisite: department permission

## BIO 455 - Plant Evolution and Classification

Classification and identification of plants, including methods of collection and preservation of vascular plants. Lectures will introduce processes of evolution that have influenced the diversity and relationships among plant groups. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO130 _CrossListed: BIO555

## BIO 456 - Freshwater Algae

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.
__Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO130 _Cross-Listed: BIO556

## BIO 457 - Aquatic Plants

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO130 _Cross-Listed: BIO557

## BIO 458 - Trees and Shrubs

A taxonomic field course on the biology, classification and identification of native trees and shrubs in winter and summer conditions. __Credit Hours: 3 hrs Prerequisite: BIO205 or BIO120 or BIO130 _Cross-Listed: BIO558

## BIO 459 - Mycology

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. _Credit Hours: 3 hrs Prerequisite: BIO120 or BIO130

## BIO 460 - Plant Anatomy

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. __Credit Hours: 3 hrs Prerequisite: BIO120 or BIO130

## BIO 461 - Plant Physiology

A detailed study of major plant functions with emphasis on growth and development presented by lecture, demonstration and experimentation in laboratory and greenhouse. __Credit Hours: 3 hrs _Prerequisite: BIO305 and BIO306; and CHEM270 or CHEM372

## BIO 462 - Plant Biotechnology

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.
Credit Hours: 3 hrs _Prerequisite: BIO305 and BIO306

## BIO 472 - Parasitology

A survey of animal parasites that affect other animals including the human. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO572

## BIO 473 - Concepts in Animal Physiology

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. __Credit Hours: 3 hrs _Prerequisite: BIO305

## BIO 474 - Comparative Anatomy of Vertebrates

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.
Credit Hours: 4 hrs _Lecture/Lab Hours: Three one-hour lectures and two two-hour laboratory periods per week. _Prerequisite: BIO120 or BIO140

## BIO 476 - Mammalian Histology

A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO576

## BIO 480 - Natural History of Invertebrates

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.
__Credit Hours: 3 hrs _Prerequisite: BIO120
or BIO140 _Cross-Listed: BIO580

## BIO 481 - Natural History of Vertebrates

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO581

## BIO 482 - Ichthyology

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO582

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _CrossListed: BIO583

## BIO 484 - Herpetology

Taxonomy, distribution, life histories, behavior and ecology of amphibians and reptiles with an emphasis on local species. __Credit Hours: 3 hrs _Prerequisite: BIO120
or BIO140 _Cross-Listed: BIO584

## BIO 485-Ornithology

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO585 _Notes: A student field project will be required. A survey of major North American bird families will be made in the laboratory.

## BIO 486 - Entomology

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. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO586

## BIO 487 - Cooperative Education in Biology

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 (BIO395/495) alternating with full-time attendance at the University. __Credit Hours: 3 hrs _Prerequisite: BIO395 _Notes: Admittance to program by application only. Graded on a credit/no-credit basis

## BIO 488 - Biology of Arachnids

Lecture, lab and field course addressing principles of arachnid biology. Course covers morphology, physiology, behavior, natural history and ecology. Identification and classification of major arachnid families supported by collections and observations of organisms from southern Michigan. __Credit Hours: 3 hrs _Prerequisite: BIO120 or BIO140 _Cross-Listed: BIO588

## BIO 490 - Special Topics

An examination of advanced topics in biology not covered in other department offerings. __Credit Hours: 1 hr _Prerequisite: department permission

## BIO 491 - Special Topics

An examination of advanced topics in biology not covered in other department offerings. __Credit Hours: 2 hrs
_Prerequisite: department permission

## BIO 492 - Special Topics

An examination of advanced topics in biology not covered in other department offerings. __Credit Hours: 3 hrs _Prerequisite: department permission

## BIO 497 - Undergraduate Research in Biology

Independent, original research in biology involving extensive library, computation, field, and/or laboratory study, under the guidance of a biology faculty member. May be elected more than once upon approval.
__Credit Hours: 1 hr _Prerequisite:
department permission

## BIO 498 - Undergraduate Research in Biology

Independent, original research in biology involving extensive library, computation, field, and/or laboratory study, under the guidance of a biology faculty member. May be elected more than once upon approval.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## BIO 499 - Undergraduate Research in Biology

Independent, original research in biology involving extensive library, computation, field, and/or laboratory study, under the guidance of a biology faculty member. May be elected more than once upon approval.
Credit Hours: 3 hrs _Prerequisite:
department permission

## BIOT 303 - Life Science for Elementary

## Teachers

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. _Credit Hours: 3 hrs
_Prerequisite: CURR304 and admission to the teacher education program

## BIOT 403 - Methods for Teaching Secondary Biology

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. __Credit Hours: 3 hrs _Prerequisite: BIO301, CURR305, EDPS340; admission to the teacher education program

## BMMT 20 - Women in Business

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST205

## BMMT 100 - Contemporary Business

The American business enterprise and international business. Contemporary problems and future challenges. Career decision-making in terms of business careers __Credit Hours: 3 hrs _Notes: Open to all
students except upper-division business majors.

## BMMT 123 - Word Processing/Keyboarding Applications

Continued keyboarding and word processing skill development. Application of skill to business documents, manuscripts and reports. Emphasis on improved editing, proofreading and referencing skills. __Credit Hours: 2 hrs

## BMMT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## BMMT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## BMMT 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BMMT 200 - Principles of Career and Technical Education

An introduction to career and technical education. The scope and importance of vocational education. Vocational curriculum development, including standards, unit plans, lesson plans and assessment objectives. Safety, ethical issues and management of vocational programs. Pre-student teaching experience will be initiated in conjunction with this course. __Credit Hours: 3 hrs

## BMMT 201 - Microcomputers for Business Applications

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.
__Credit Hours: 3 hrs

## BMMT 205 - Women in Business

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. __Credit Hours: 3 hours

## BMMT 220 - Word/Information Processing Operations

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
__Credit Hours: 3 hrs _Prerequisite:
BMMT123 and BMMT201

## BMMT 250 - Personal Finance

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 __Credit Hours: 3 hrs _Notes: Open to all students.

## BMMT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## BMMT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

## BMMT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BMMT 285 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hrs _Prerequisite: department permission

## BMMT 286 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## BMMT 287 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## BMMT 310 - Word/Information Processing Administration

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. __Credit Hours: 3 hrs _Prerequisite: NITA210 and BMMT220

## BMMT 321 - Digital Tools:

## Communication

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 __Credit Hours: 3 hrs

## BMMT 363-Curriculum for Career and Technical Education

This course is sequenced to take students through the process of curriculum planning and design for a Career and Technical Education Program and is required by the state to receive a vocational endorsement. . The process results in both the assembly of a curriculum package and mastery of the process. __Credit Hours: 3 hrs _Prerequisite: BMMT200; admission to the teacher education program

## BMMT 364 - Methods in Teaching General Business Subjects

Methods in teaching general business, law and keyboarding with application to classroom situations. Objectives, lesson planning, techniques of teaching, and sources of materials. _Credit Hours: 2 hrs
Prerequisite: RDNG311 and EDPS322; 2.5
GPA in all business education subjects taken at EMU, no academic probation; admission to the teacher education program

## BMMT 365 - Methods of Teaching Office Education

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. _Credit Hours: 2 hrs _Prerequisite: EDPS322 and BMMT364; 2.5 GPA in all business education subjects taken at EMU, no academic probation

## BMMT 366 - Methods of Teaching Marketing Education

Techniques and practices utilized in teaching marketing and cooperative education in secondary schools, community colleges and adult evening schools. __Credit Hours: 2 hrs _Prerequisite: EDPS322; 2.5 GPA in all business education subjects taken at EMU, no academic probation; admission to the teacher education program

BMMT 367 - Curriculum in Marketing Education

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.
__Credit Hours: 2 hrs

## BMMT 368 - Management of Marketing Education Programs

Examines the marketing educator roles of DECA adviser, public relations specialist, career counselor, program administrator/supervisor and professional educator. __Credit Hours: 2 hrs

## BMMT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## BMMT 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## BMMT 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BMMT 387 - Co-operative Education

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 Hours: 3 hrs _Prerequisite: department
permission _Notes: Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis

## BMMT 395 - Administering Workplace Systems and Technology

Assessment, implementations and utilization of workplace systems and technology from the point of view of the administrative manger. Examination of workplace organization, physical facilities and productivity. __Credit Hours: 3 hrs
_Prerequisite: BMMT201

## BMMT 396 - Information and Media

## Administration

Management methodology in records, control, costs, protection, retention, retrieval and disposal. Records administration as a management tool. __Credit Hours: 3 hrs _Prerequisite: BMMT201

## BMMT 461 - Projects and Simulations in Marketing Education

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. __Credit Hours: 2 hrs

## BMMT 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## BMMT 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## BMMT 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## BMMT 487-Co-operative Education

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 Hours: 3 hrs _Prerequisite: department permission _Notes: Credit will not apply toward degree completion. Course is offered on a credit/no-credit basis

## BMMT 496 - Records Administration Using Database

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.

Credit Hours: 3 hrs _Prerequisite: BMMT396

## BMMT 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hrs _Prerequisite: department permission

## BMMT 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## BMMT 499 - Independent Study

Advanced study on an individual basis in
areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## CADM 105-Computer Applications for Industry

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course.

## CADM 106 - Industrial Computer Applications for Manufacturing

This course presents advanced DOS commands and concepts appropriate for microcomputers configured for CAD/CAM and other similar industrial applications. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course. _Prerequisite: a course in computer literacy

## CADM 120-Computer-Aided Print Reading

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.
Credit Hours: 3 hrs _Prerequisite:
CADM105 or IS215

## CADM 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CADM 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CADM 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## CADM 231 - Computer Graphic Programming for Industry

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. _Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course _Prerequisite: MATH107 and a course in C programming

## CADM 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## CADM 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CADM 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CADM 334-3-D Computer-Aided Design Modeling

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. __Credit Hours:
3 hrs _Prerequisite: CADM122 and CADM223

## CADM 360 - CIM Operations

Concepts, components, and application of computer-based industrial automation. The integration and implications of CAD, CAM and business functions into CIM are included. _Credit Hours: 3 hrs _Prerequisite: MFG203

## CADM 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## CADM 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CADM 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CADM 387-Cooperative Education in CAD/CAM Technology

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission _Notes: Credit
applicable to the major in industrial
technology or industrial teacher education only. Offered on a credit/no-credit basis.

## CADM 417 - Industrial Robotics

The nature and use of industrial robotics: capabilities, equipment and associated
hardware, justification, preparation and installation, launching and monitoring.
__Credit Hours: 3 hrs _Lecture/Lab Hours:
Lecture and laboratory course _Prerequisite:
CADM106, MFG203, ELEC218 and MFG318

## CADM 461-CAD/CAM NC Programming

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. __Credit Hours: 3 hrs _Prerequisite: MFG361

## CADM 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CADM 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CADM 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## CADM 485 - Flexible Manufacturing Systems

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course _Prerequisite: MFG316, CADM324, MFG361, QUAL320 and MFG425

## CADM 487-Cooperative Education in CAD/CAM Technology

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 Credit Hours: 3 hrs _Prerequisite:
CADM387 and department permission _Notes: Graded on a credit/no-credit basis.

## CADM 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 1 hr _Notes: Offered on a credit/no-credit basis

## CADM 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 2 hrs _Notes: Offered on a credit/no-credit basis.

## CADM 496 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 3 hrs _Notes: Offered on a credit/no-credit basis.

## CADM 497 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hrs _Prerequisite: department

## permission

## CADM 498 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CADM 499 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CASI 150 - Life's a Risk

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. __Credit Hours: 3 hrs

## CASI 177 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CASI 178-Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CASI 206 - Culture and the Holocaust

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. __Credit Hours: 3 hrs

## CASI 240 - Reel Women/Real Women

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. __Credit Hours: 3 hrs

## CASI 277 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CASI 278 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CASI 279 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CASI 280 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may
elect more than once, provided different topics are studied. __Credit Hours: 4 hrs _Prerequisite: department permission

## CASI 377 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CASI 378 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CASI 379 - Special Topics

Study and exploration of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CASI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CASI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CASI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CET 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 1 hr _Notes: Students may elect more than once, provided different topics are studied.

## CET 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 2 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 3 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 251 - Engineering Software and Applications

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. __Credit Hours: 3 hrs _Prerequisite: ET100, COSC111 and MATH120

## CET 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 1 hr _Notes: Students may elect more than once, provided different topics are studied.

## CET 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 2 hrs _Notes: Students may elect more than once, provided different topics are studied.

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 3 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 353 - Web Development for Engineering Applications

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. __Credit Hours: 3 hrs _Prerequisite: CET251, COSC334 and IS380

## CET 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 1 hr _Notes: Students may elect more than once, provided different topics are studied.

## CET 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 2 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 3 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 387-Cooperative Education in Computer Engineering Technology

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. _Credit Hours: 3 hrs _Prerequisite: department permission

## CET 426 - Engineering Product <br> Information

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. __Credit Hours: 3 hrs _Prerequisite: ELEC218

## CET 427 - Programmable Logic Controller

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course. _Prerequisite: ELEC218

## CET 451 - Engineering Database Development

This course covers the essentials of developing and implementing database system for engineering applications. 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. __Credit Hours: 3 hrs _Prerequisite: IS380

## CET 453 - Engineering Programming

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 Webbased programs for engineering applications.
__Credit Hours: 3 hrs _Prerequisite: CET353

## CET 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. _Credit Hours: 1 hr _Notes: Students may elect more than once, provided different topics are studied.

## CET 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 2 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. __Credit Hours: 3 hrs _Notes: Students may elect more than once, provided different topics are studied.

## CET 491 - Senior Design Capstone

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.
Credit Hours: 3 hrs _Prerequisite: ELEC218, ENGL324, CET353 and senior standing

## CET 497 - Independent Study

Available to selected students who have demonstrated ability to profit from directedstudy project. Intensive study of a problem appropriate to the student's area of concentration. Election and selection of a project proposal must be approved by the department adviser and chair. __Credit Hours: 1 hr _Prerequisite: department permission and sophomore or junior standing

## CET 498 - Independent Study

Available to selected students who have demonstrated ability to profit from directedstudy project. Intensive study of a problem appropriate to the student's area of concentration. Election and selection of a project proposal must be approved by the department adviser and chair. __Credit Hours: 2 hrs _Prerequisite: department permission and junior or senior standing

## CET 499 - Independent Study

Available to selected students who have demonstrated ability to profit from directedstudy project. Intensive study of a problem appropriate to the student's area of concentration. Election and selection of a project proposal must be approved by the department adviser and chair. __Credit Hours: 3 hrs _Prerequisite: department permission and junior or senior standing

## CHEM 101 - Chemistry for Elementary Teachers

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week.

## CHEM 115 - Chemistry and Society

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. In order to satisfy four credits of Knowledge of the Disciplines - Natural Science portion of the General Education program, CHEM116 must be taken concurrently. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Notes: Does not count toward major or minor.

CHEM 116-Chemistry and Society Laboratory

The course consists of a set of laboratory experiments based on environmental problems such as water and air pollution, drugs and pesticides. CHEM115 must be taken concurrently to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program. __Credit Hours: 1 hr _Lecture/Lab Hours: Laboratory: two hours per week. _Prerequisite/Corequisite: CHEM115

## CHEM 117 - Fundamentals of ChemistryLecture

A rapidly moving introductory study of basic principles in general chemistry. Includes elements, compounds, periodic properties, atomic structure, gas laws and stoichiometry. Can be used with CHEM118 to satisfy the chemistry prerequisite for CHEM121. CHEM118 must be taken concurrently to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: MATH104, MATH105, MATH107, MATH112, MATH118, MATH119, MATH120 or Level 3 math placement; _Corequisites: CHEM118

## CHEM 118 - Fundamentals of Chemistry Laboratory

This course is 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. CHEM117 must be taken concurrently to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program. __Credit Hours: 1 hr _Lecture/Lab Hours: Laboratory: two hours per week. _Corequisites: CHEM117

## CHEM 120 - Fundamentals of Organic and Biochemistry

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week.
Laboratory: two hours per week
_Prerequisite: high school chemistry or

CHEM117
CHEM123

## CHEM 121-General Chemistry I

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. CHEM122 must be take concurrently to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: MATH104 or Level 3 math placement with concurrent registration in MATH104; High school chemistry; _CrossListed: CHEM122

## CHEM 122 - General Chemistry I Laboratory

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. CHEM121 must be taken concurrently to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program. __Credit Hours: 1 hr _Lecture/Lab Hours: Laboratory: three hours per week. _Corequisites: CHEM121

## CHEM 123 - General Chemistry II

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. Restriction: C- or better in CHEM121._Prerequisite: CHEM121 and CHEM122; and MATH105, MATH112, MATH119, MATH120 or Level 5 math placement_Corequisites: CHEM124

## CHEM 124 - General Chemistry II Laboratory

The techniques learned in CHEM122 are reemphasized and supplemented. __Credit Hours: 1 hr _Lecture/Lab Hours: Laboratory: three hours per week. Restrictions: C- or better in CHEM122 _Corequisites:

## CHEM 125 - Honors General Chemistry II (Lecture)

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: CHEM121 and CHEM122; and MATH105, MATH112, MATH119, MATH120 or Level 5 math placement; and consent of Honors
Committee; _Corequisites: CHEM126

## CHEM 126 - Honors General Chemistry II (lab)

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.
Credit Hours: 1 hr _Lecture/Lab Hours:
Laboratory: three hours per week.
_Corequisites: CHEM125

## CHEM 177 - Special Topics

Covers specific chemistry topics not discussed in any regular, introductory chemistry course. __Credit Hours: 1 hr _Prerequisite: department permission

## CHEM 178 - Special Topics

Covers specific chemistry topics not discussed in any regular, introductory chemistry course __Credit Hours: 2 hrs _Prerequisite: department permission

## CHEM 179 - Special Topics

Covers specific chemistry topics not discussed in any regular, introductory chemistry course. _Credit Hours: 3 hrs _Prerequisite: department permission

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: four hours per week. _Prerequisite: CHEM121/122

## CHEM 271 - Organic Chemistry Laboratory

Instruction in the basic manipulative techniques of experimental organic chemistry and experience with organic chemicals.
__Credit Hours: 1 hr _Lecture/Lab Hours:
Laboratory: three hours per week.
_Prerequisite/Corequisite: CHEM270

## CHEM 277 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry course at this level. __Credit Hours: 1 hr _Prerequisite: one 100-level chemistry course and department permission

## CHEM 278 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry course at this level. __Credit Hours: 2 hr _Prerequisite: one 100 -level chemistry course and department permission

## CHEM 279 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry course at this level. __Credit Hours: 3 hr _Prerequisite: one 100 -level chemistry course and department permission

## CHEM 281 - Quantitative Analysis

A lecture and laboratory course treating instrumental, gravimetric, and volumetric analysis, and equilibrium. __Credit Hours: 4 hrs _Lecture/Lab Hours: Laboratory: six hours per week. Lecture: two hours per week. _Prerequisite: CHEM123/124 or

- CHEM $125 / 126$


## CHEM 282 - Honors Quantitative Analysis

A lecture and laboratory course treating instrumental, trace, separation and characterization techniques. __Credit Hours: 4 hrs _Lecture/Lab Hours: Laboratory: six hours per week. Lecture: two hours per week.. _Prerequisite: CHEM125/126 or CHEM123/124 and consent of honors coordinator

## CHEM 287 - Cooperative Education in Chemistry

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. _Credit Hours: 1 hr _Prerequisite: CHEM123/124 or CHEM125/126; admission by application only; sophomore standing _Notes: Graded on a credit/no-credit basis.
No credit granted toward chemistry degree programs, except with departmental permission

## CHEM 288 - Cooperative Education in Chemistry

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. Credit Hours: 2 hrs _Prerequisite:
CHEM123/124 or CHEM125/126; admission by application only; sophomore standing _Notes: Graded on a credit/no-credit basis. No credit granted toward chemistry degree programs, except with departmental permission.

## CHEM 289-Cooperative Education in Chemistry

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. Credit Hours: 3 hrs _Prerequisite: CHEM123/124 or CHEM125/126; admission by application only; sophomore standing
_Notes: Graded on a credit/no-credit basis. No credit granted toward chemistry degree programs, except with departmental permission.

## CHEM 297 - Undergraduate Research in Chemistry

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CHEM 325-Methodology for Secondary Chemistry Teachers

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, computerbased instruction, computer data acquisition and other methodology. __Credit Hours: 3 hrs _Lecture/Lab Hours: Two hours of lecture and three hours of lab per week.
_Prerequisite: CHEM123/124 or - - $\mathrm{CEM} 125 / 126$; CHEM281 or CHEM282; CHEM270/271 or CHEM372/373 or CHEM372/376

## CHEM 332 - Inorganic Chemistry

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. __Credit Hours: 2 hrs _Prerequisite: CHEM372/373 or CHEM376

## CHEM 340 - Introduction: to Industrial Chemistry

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture:
three hours per week _Prerequisite: CHEM123/124 or CHEM125/126; CHEM270 or CHEM371/372; and PHY221 or PHY223

## CHEM 341 - Fundamentals of Material Science

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. _Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: CHEM123/124 or CHEM125/126; CHEM270 or CHEM372

## CHEM 351 - Foundations of Biochemistry

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. __Credit Hours: 4 hrs _Prerequisite: CHEM270 or CHEM372 _Notes: Not open to freshmen and graduate students.

## CHEM 361 - Fundamentals of Physical Chemistry

Calculus-based introduction to quantum mechanics, thermodynamics and kinetics. Serves as survey course for general curricula and major.
__Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: MATH120, CHEM281 or CHEM282 _Prerequisite/Corequisite: PHY222 or PHY224

## CHEM 371 - Organic Chemistry I

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per
week. Credit cannot be earned in both CHEM270 and CHEM371. _Prerequisite: CHEM123/124 or CHEM125/126

## CHEM 372 - Organic Chemistry II

A continuation of CHEM371. CHEM371 and CHEM372 constitute the customary year of foundation/lecture work in organic chemistry. __Credit Hours: 3 hrs _Lecture/Lab Hours:
Lecture: three hours per week. Restriction: Cor better in CHEM371 _Prerequisite: CHEM371

## CHEM 373 - Organic Chemistry

## Laboratory

Covers the basic techniques involved in organic chemistry. __Credit Hours: 2 hrs _Lecture/Lab Hours: Laboratory: six hours per week. _Prerequisite/Corequisite: CHEM372

## CHEM 376 - Honors Organic Chemistry Laboratory

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
__Credit Hours: 2 hrs _Lecture/Lab Hours:
Laboratory: six hours per week.
_Prerequisite/Corequisite: CHEM372 and
consent of Honors Coordinator

## CHEM 377 - Special Topics

Covers specific chemical topics not discussed in any regular chemistry course at this level.

Credit Hours: 1 hr _Prerequisite:
department permission

## CHEM 378 - Special Topics

Covers specific chemical topics not discussed in any regular chemistry course at this level.
Credit Hours: 2 hrs _Prerequisite:
department permission

## CHEM 379 - Special Topics

Covers specific chemical topics not discussed in any regular chemistry course at this level.

Credit Hours: 3 hrs _Prerequisite: department permission

## CHEM 381 - Instrumentation for Chemical Technology

A lecture and laboratory course that surveys various types of analytical instrumentation and their uses in chemical industry __Credit Hours: 2 hrs _Lecture/Lab Hours: . Lecture: one hour per week. Laboratory: three hours per week. _Prerequisite: CHEM281, CHEM270 or CHEM372; and CHEM271 or CHEM373 or CHEM376.

## CHEM 381W - Instrumentation for Chemical Technology

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description.
Credits: 2 hrs _Lecture: one hour per week. Laboratory: three hours per week.

## CHEM 387-Cooperative Education in Chemistry

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. __Credit Hours: 1 hrs _Prerequisite: junior standing _Notes: Graded on a credit/no-credit basis For junior-level students. No credit granted toward chemistry degree programs, except with department permission

## CHEM 388 - Cooperative Education in Chemistry

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.
__Credit Hours: 2 hrs _Prerequisite: junior
standing _Notes: Graded on a credit/no-credit basis. For junior-level students No credit granted toward chemistry degree programs, except with department permission

## CHEM 389-Cooperative Education in Chemistry

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 Credit Hours: 3 hrs Prerequisite: junior standing _Notes: Graded on a credit/no-credit basis. For junior-level students No credit granted toward chemistry degree programs, except with department permission

## CHEM 397 - Undergraduate Research in Chemistry

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. Credit Hours: 1 hr _Prerequisite: department permission

## CHEM 406 - The Nature of Science

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 __Credit Hours: 1 hr _Prerequisite: CHEM123 and CHEM124, department permission for nonchemistry majors

## CHEM 411 - Toxicology I

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. _Credit Hours: 2 hrs _Lecture/Lab Hours: Lecture: two hours per week. _Prerequisite: CHEM270 or CHEM372

## CHEM 412-Toxicology II

Discussion of the metabolism of toxicants and their effect on specific organ systems;
specific classes of toxicants and legal aspects of toxicology.. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. _Prerequisite: CHEM411; biochemistry recommended

## CHEM 413 - Toxicology Laboratory

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. Credit Hours: 2 hrs Lecture/Lab Hours: Lecture: one hour per week. Laboratory: three hours per week. Prerequisite: CHEM411; CHEM281 recommended

## CHEM 415-Environmental Chemistry

A survey of environmental and energyrelated 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. __Credit Hours: 3 hrs Lecture/Lab Hours: Lecture three hours per week. _Prerequisite: CHEM123/124 or CHEM125/126; CHEM270 or CHEM372 and CHEM281 recommended.

## CHEM 432 - Advanced Inorganic Chemistry

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. __Credit Hours: 3 hrs Lecture/Lab Hours: Lecture: three hours per week. Laboratory: six hours per week. _Prerequisite: CHEM465 or department permission; CHEM332 recommended

## CHEM 433 - Inorganic-Organic Synthesis Laboratory

Covers advanced preparative and analytical techniques of inorganic and organic chemistry including extensive use of IR, NMR, UV-visibe and other instruments. Credit Hours: 2 hrs _Prerequisite:
CHEM281 or CHEM282; and CHEM373 or

CHEM376

## CHEM 451 - Biochemistry I

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 onesemester survey of biochemistry for health science students and as the first semester of a two-semester sequence for chemistry, biology and toxicology students. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. Prerequisite: CHEM123/124 or CHEM125/126; and CHEM270 or CHEM372

## CHEM 452 - Biochemistry II

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 Credit Hours: 3 hrs Lecture/Lab Hours: Lecture: three hours per week. Restrictions: C- or better in CHEM451. _Prerequisite: CHEM451 Notes: Restrictions: C- or better in CHEM451.

## CHEM 453 - Biochemistry Laboratory

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. __Credit Hours: 2 hrs _Lecture/Lab Hours:
Laboratory: six hours per week.
_Prerequisite: CHEM451 or CHEM351;
CHEM271 or CHEM373 or CHEM376; and CHEM281 strongly recommended

## CHEM 453W - Biochemistry Laboratory

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Credits: 2 hrs _Lecture/Lab Hours: Laboratory: six hours per week.

## CHEM 461 - Chemical Thermodynamics and Kinetics

The study of the principles of thermodynamics, the equilibrium properties of systems and the rates of chemical reactions. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week. _Prerequisite: PHY224 and CHEM281 or CHEM282 _ _Prerequisite/Corequisite: MATH223

## CHEM 463 - Physical Chemistry Laboratory

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. __Credit Hours: 2 hrs _Lecture/Lab Hours: Laboratory: six hours per week.
Restrictions: C- or better in CHEM361 _Prerequisite: MATH121 and CHEM361 or CHEM461 _Notes: Restrictions: C- or better in CHEM361

## CHEM 463W - Physical Chemistry <br> Laboratory

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description.

Credits: 2 hrs

## CHEM 465-3 hrs Quantum and

## Statistical Mechanics

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.. __Credit Hours: 3 hrs
_Lecture/Lab Hours: Lecture: three hours per week _Prerequisite: CHEM461

## CHEM 475 - Introduction to Polymer Chemistry

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week.
_Prerequisite: CHEM270 or CHEM372

## CHEM 477 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry courses at this level. __Credit Hours: 1 hr _Prerequisite: department permission

## CHEM 478 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry courses at this level. __Credit Hours: 2 hrs
_Prerequisite: department permission

## CHEM 479 - Special Topics

Covers specific chemistry topics not discussed in any regular chemistry courses at this level. __Credit Hours: 3 hrs
_Prerequisite: department permission

## CHEM 481 - Instrumental Analysis

Theory and practice of chemical analysis and measurements and data processing by instrumental methods. Credit Hours: 4 hrs Lecture/Lab Hours: Lecture: two hours per week. Laboratory: six hours per week. Prerequisite: CHEM281 or CHEM282; and CHEM463 _Prerequisite/Corequisite: CHEM465

## CHEM 485 - Introduction to Radiotracer Techniques

Measurement of radiation and principles of radiation safety; experiments with emphasis on beta and gamma-ray counting and handling radioactivity. __Credit Hours: 2 hrs Lecture/Lab Hours: Lecture: one hour per week. Laboratory: three hours per week. Prerequisite: CHEM123/124 or

CHEM125/126; and either CHEM281, one science laboratory course above the 200 -level or department permission

## CHEM 487 - Cooperative Education in Chemistry

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. Credit Hours: 1 hr Notes: Graded on a credit/no-credit basis.For senior-level students.

## CHEM 488 - Cooperative Education in Chemistry

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.
Credit Hours: 2 hrs Notes: Graded on a credit/no-credit basis For senior-level students.

## CHEM 489 - Cooperative Education in Chemistry

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.
Credit Hours: 3 hrs _Notes: Graded on a credit/no-credit basis. For senior-level students.

## CHEM 497 - Undergraduate Research in Chemistry

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. Credit Hours: 1 hr Prerequisite: department permission

## Chemistry

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CHEM 499 - Undergraduate Research in Chemistry

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CHEM 551-Macromolecular

Biochemistry
This course considers the fundamental themes of nucleic acid biochemistry including DNA structure, folding, replication and repair mechanisms transcription; translation; gene regulation and techniques in recombinant DNA technology. Emphasis is placed on chemical mechanisms of these processes and targets for drug development. Text and literature articles are utilized. _Credit Hours: 2 hrs _Prerequisite: CHEM451 or equivalent or instructor permission _Notes: This is a graduate course in an undergraduate program.

## CHEM 554 - Protein Structure and Function

The description of chemical and molecular biological approaches to investigating protein structure, and methods to analyze protein function. Rapid and steady-rate kinetics, recombinant DNA technology and expression systems, metabolic and protein assay development and relevant computer applications will be highlighted. __Credit Hours: 2 hrs _Prerequisite: CHEM451 or equivalent or instructor permission _Notes: This is a graduate course in an undergraduate program.

## CHEM 555 - Neurochemistry

Discussion of the biochemistry of the nervous system covering the synthesis, distribution,
mechanism of function and degradation of compounds involved in neural function (including neurotransmitters, neurohormones, brain sphingolipids, steroids and prostaglandins). Mental diseases with a known biochemical basis and the rationale for drug therapy are described. __Credit Hours: 3 hrs _Prerequisite: CHEM452 or equivalent _Notes: This is a graduate course in an undergraduate program.

## CHEM 561-Quantum Chemistry and Spectroscopy

A study of atomic and molecular structure and spectroscopy based on quantum chemistry. __Credit Hours: 2 hrs _Prerequisite: CHEM465 or equivalent _Notes: This is a graduate course in an undergraduate program.

## CHEM 562 - Statistical Mechanics and Chemical Kinetics

Introduction to the principles of statistical mechanics, the connection between the microscopic world and classical thermodynamics, and modern theories of chemical reaction rates. _Credit Hours: 2 hrs _Prerequisite: CHEM465 or equivalent _Notes: This is a graduate course in an undergraduate program.

## CHEM 565 - Nuclear Chemistry

The course will cover topics such as radioactive decay, decay systematics, nuclear models and nuclear reactions. Applications of radioactivity to chemical problems will be discussed. Techniques of nuclear chemistry, nuclear processes as chemical probes and other such topics will be covered. A discussion of the preparation and properties of transplutonium elements will be included.
_Credit Hours: 3 hrs _Prerequisite: one year of college chemistry; one course in physical chemistry or modern physics _Notes: This is a graduate course in an undergraduate program.

## CHEM 571 - Advanced Organic Chemistry

A lecture course devoted to developing a deeper understanding of the structure of organic compounds and the mechanism of
organic reactions. The structural aspects of bonding, stereochemistry and conformation will be extended beyond the introductory level prior to considering mechanistic studies on several fundamental reaction types.
__Credit Hours: 3 hrs _Prerequisite: one year of organic chemistry _Notes: This is a graduate course in an undergraduate program.

## CHEM 572 - Spectrometric Organic Structure Determination

The use of infrared, Raman, ultraviolet, mass and nuclear magnetic resonance spectroscopy in organic structure determination will be discussed. Emphasizes problem-solving and practical applications. __Credit Hours: 4 hrs _Prerequisite: CHEM372 or equivalent _Notes: This is a graduate course in an undergraduate program.

## CHEM 574 - Advanced Organic Chemistry Topics

Two or three advanced topics are treated in depth. The topics selected will vary from offering to offering and could include such examples as: stereochemistry and conformational analysis, natural product chemistry, heterocyclic compounds, orbital symmetry rule and applications, and photochemistry. __Credit Hours: 2 hrs _Prerequisite: CHEM372 or equivalent _Notes: This is a graduate course in an undergraduate program.

## CHEM 581 - Advanced Analytical Chemistry

Practical applications of modern chemical analysis using instrumental methods, which may include optical, x-ray and nuclear spectroscopy, mass spectrometry and separations. __Credit Hours: 3 hrs _Prerequisite: CHEM463 and either CHEM361, CHEM461 or CHEM481 _Notes: This is a graduate course in an undergraduate program.

## CHEM 590 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are
covered. Not more than six hours of special topics may be used on a degree program.
__Credit Hours: 1 hr _Prerequisite:
department permission _Notes: This is a graduate course in an undergraduate program.

## CHEM 591 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
Credit Hours: 2 hrs _Prerequisite: department permission _Notes: This is a graduate course in an undergraduate program.

## CHEM 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: This is a graduate course in an undergraduate program.

## CHL 137 - Harry Potter: Literary Allusion, Children's Literature and Popular Culture

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. __Credit Hours: 3 hrs

## CHL 207-Introduction to Children's Literature

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing and one 100-level LITR course

## CHL 208 - Multicultural Children's Literature

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. __Credit Hours: 3 hrs

## CHL 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 _Prerequisite/Corequisite: department permission

## CHL 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 _Prerequisite: department permission

## CHL 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Prerequisite: department permission

## CHL 351 - World Mythology

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. __Credit Hours: 3 hrs _Prerequisite: any 200-level LITR course

## CHL 352 - Folk Literature: Ballads and Folk Tales

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. __Credit Hours: 3 hrs _Prerequisite: any 200-level LITR course

## CHL 450 - Children's Literature:Criticism and Response

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. __Credit Hours: 3 hrs _Prerequisite: LITR207

## CHL 450W - Children's Literature: Criticism and Response

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. __Click here for course description. _ _ _ Credits: 3 hrs _ _ Credit Hours: 3 hrs _Prerequisite: LITR207

## CHL 451 - Writing about Controversy in Literature for the Young

This course will deal with strategies for the collection, organization and presentation of materials dealing with controversial issues in literature for young adults.. __Credit Hours: 3 hrs _Prerequisite: ENGL121 and LITR207 or department permission

## CHL 451W - Writing about Controversy in Literature for the Young

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. _Click here for course description.
_Credits: 3 hrs _ _Credit Hours: 3 hrs _Prerequisite: ENGL121 and LITR207 or department permission

## CHL 453 - Children's Literature: Picture Books

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. __Credit Hours: 3 hrs

## CHL 454 - Children's Literature: Fiction

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. __Credit Hours: 3 hrs

## CHL 455 - Adolescent Literature

This course provides a forum for intense reading, discussion and exploration of the texts and issues associated with adolescent literature. __Credit Hours: 3 hrs _Prerequisite: LITR300; junior or senior status

## CHL 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Prerequisite: department permission

## CHL 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Prerequisite: department permission

## CHL 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Prerequisite: department permission

## CHL 497 - Independent Study

_Prerequisite: CHNE121

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. __Prerequisite: nine hours in the appropriate major or minor

## CHL 498 - Independent Study

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. __Prerequisite: nine hours in the appropriate major or minor

## CHL 499 - Independent Study

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. __Prerequisite: nine hours in the appropriate major or minor

## CHNE 121 - Beginning Chinese I

This is an introductory course in Mandarin Chinese. Students will communicate in a variety of practical contexts, analyze the cultural practices, products and perspectives shaping everyday situations, develop oral communication skills, read and write simplified versions of characters and gain exposure to the traditional characters.
__Credit Hours: 5 hrs

## CHNE 122 - Beginning Chinese II

This is the second introductory course in Mandarin Chinese. Students will communicate in a variety of practical contexts, analyze the cultural practices, products and perspectives shaping everyday situations, develop oral communication skills, read and write simplified versions of characters and gain exposure to the traditional characters. __Credit Hours: 5 hrs

## CHNE 211 - Beginning Chinese III

This is the third introductory course in Mandarin Chinese. Students will communicate in a variety of practical contexts, analyze the cultural practices, products and perspectives shaping everyday situations, develop oral communication skills, read and write simplified versions of characters and gain exposure to the traditional characters. __Credit Hours: 5 hrs _Prerequisite: CHNE122

## CHNE 212 - Beginning Chinese IV

The is the fourth introductory course in Mandarin Chinese. Students will communicate in a variety of practical contexts, analyze the cultural practices, products and perspectives shaping everyday situations, develop oral communication skills, read and write simplified versions of characters and gain exposure to the traditional characters. __Credit Hours: 5 hrs _Prerequisite: CHNE211

## CLAS 104 - Quest for Power: Famous Figures in History

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with HIST104 _Notes: Note: see honors humanities courses

## CLAS 106 - Rome and America

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..

[^0]course is cross-listed with LITR106 _Notes: Note: see honors humanities courses

## CLAS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CLAS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## CLAS 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CLAS 181 - The Legacy of Greece

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. Credit Hours: 3 hrs Cross-Listed:
LITR181 _Notes: See Honor's humanities courses

## CLAS 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CLAS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## CLAS 279-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CLAS 301 - Classical Mythology

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. __Credit Hours: 3 hrs

## CLAS 321 - Women and Gender in the Ancient World

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.
Credit Hours: 3 hrs _Prerequisite: This course is cross-listed with
HIST321/WGST321.

## CLAS 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr _Prerequisite: department permission

## CLAS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## CLAS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## CLAS 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CLAS 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## CLAS 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CLAS 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## CLAS 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## CLAS 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## CLSC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CLSC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CLSC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## CLSC 200 - Clinical Laboratory Techniques

Basic skills necessary to function in a clinical laboratory; e.g., phlebotomy, use of the microscope, specimen collection and preparation, pipetting and lab safety. Credit Hours: 3 hrs _Prerequisite:
BIOL110 and CHEM121/122

## CLSC 201 - Phlebotomy Techniques

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. __Credit Hours: 2 hrs _Prerequisite/Corequisite: AHPR200 or department permission

## CLSC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CLSC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## CLSC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CLSC 300 - Molecular Diagnostics

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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: BIOL301 and CLSC200

## CLSC 301 - Molecular Diagnostics Laboratory

This laboratory course will examine the techniques of molecular techniques use in the clinical laboratory, including nucleic acid extraction, nucleic acid hybridization, electrophoresis and polymerase chain reactions. __Credit Hours: 1 hr

## CLSC 307 - Urinalysis, Body Fluids and Hemostasis

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. __Credit Hours: 3 hrs _Prerequisite: CLSC200 or permission

## CLSC 322 - Clinical Microbiology I

A lecture and laboratory course on the basic disease processes and pathogenesis of
clinicaaly-relevant microorganisms. This course will discuss the major pathogenic bacteria, viruses and fungi. The laboratory portion of this course will emphasize the standard microbiological techniques, including isolation, cultivation, identification and antibiotic susceptibility testing. This course will serve as an entry-level microbiology course and is intended as a onesemester survey of microbiology for health science students and as a first semester of a two-semester sequence for clinical laboratory sciences students. __Credit Hours: 4 hrs _Prerequisite: BIOL105 or BIOL110 or with department permission

## CLSC 332 - Clinical Microbiology I

A lecture and laboratory course on the basic disease processes and pathogenesis of clinically-relevant microorganisms. The laboratory portion of this course will emphasize the standard microbiological techniques, including isolation, cultivation and identification. This course will serve as a first semester of a two-semester sequence for clinical laboratory science students. __Credit Hours: 3 hrs _Prerequisite: BIO105 or BIO110 or department permission; students with sophomore standing in Clinical
Laboratory Science programs only
_Prerequisite/Corequisite: CLSC200

## CLSC 335-Clinical Immunology

Lecture and laboratory presenting theory, basic principles, and practical experience in clinical immunology. The correlation of basic principles to human disease state. __Credit Hours: 3 hrs _Prerequisite: CLSC200 or permission of instructor

## CLSC 336-Clinical Immunology Laboratory

This laboratory course will examine the immunological diagnostic techniques use in the clinical immunology laboratory, including fluorescence immunoassay's, enzyme immunoassay's, immunoelectrophoresis and latex agglutination testing. __Credit Hours: 1 hr _Prerequisite/Corequisite: CLSC335

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CLSC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## CLSC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## CLSC 387 - Cooperative Education in Clinical Laboratory Science

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.. __Credit Hours: 3 hrs _Prerequisite: CHEM270 and CHEM271; permission of program director _Notes: Offered on a graded or credit/nocredit basis

## CLSC 401 - Laboratory Management/ Education

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. __Credit Hours: 3 hrs _Prerequisite: CLSC200 and MATH170 or equivalent

## CLSC 402 - Clinical Chemistry

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.
Credit Hours: 3 hrs Prerequisite:
CHEM351 or permission of instructor

## CLSC 403-Clinical Chemistry Laboratory

This laboratory course will examine the diagnostic testing used in the clinical chemistry laboratory. These procedures will include enzymatic diagnostic procedures, spectrophotometric analysis and protein electrophoresis using clinical samples. Credit Hours: 1 hrs _Corequisites: CLSC402

## CLSC 405-Cytotechnology Clinical Internship

Microscopic study of cellular alterations indicative of cancer and precancerous conditions, bacterial, viral and parasitic infections, and hormonal abnormalities; cytogenetics; and a research project. Credit Hours: 14 hrs _Prerequisite: program approval

## CLSC 406-Cytotechnology Clinical Internship

Continuation of CLSC405. __Credit Hours: 14 hrs _Prerequisite: program approval

## CLSC 407 - Hematology

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. __Credit Hours: 3 hrs _Prerequisite: CLSC200 or permission _Notes: Not open to those with credit in BIOL407.

## CLSC 408-Clinical Hematology Laboratory

This laboratory course will examine the hematological techniques used in the clinical hematology laboratory. These include the identification of abnormal blood cells, cell counting procedures and staining procedures
used to identify abnormal blood cells.
Credit Hours: 1 hr
_Prerequisite/Corequisite: CLSC407

## CLSC 410 - Cytogenetics, Clinical Internship I

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. _Credit Hours: 14 hrs _Prerequisite: program approval

## CLSC 411 - Cytogenetics, Clinical Internship II

Continuation of CLSC410. __Credit Hours: 14 hrs _Prerequisite: program approval

## CLSC 412 - Clinical Laboratory

Individual Clinical Laboratory practicum experience. Experiences will be in the specialty areas of the clinical laboratory including, but not limited to molecular diagnosis. _Credit Hours: 14 hrs _Prerequisite: department permission

## CLSC 416 - Basic Histotechnique and Histochemical Staining Methods

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. __Credit Hours: 12 hrs _Prerequisite: program approval

## CLSC 417 - Basic Electron Microscopy

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. __Credit Hours: 8 hrs _Prerequisite: program approval

## CLSC 418 - Immunohisto-Cytochemistry

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. Credit Hours: 4 hrs _Prerequisite: program approval

## CLSC 419 - Internship Special Histotechnology Techniques

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. __Credit Hours: 4 hrs _Prerequisite: program approval

## CLSC 432 - Clinical Microbiology

Course covers mechanisms of pathogenesis associated with specific bacterial, viral, fungal and parasitic etiological agents of human disease. Credit Hours: 3 hrs _Prerequisite: CLSC332 or permission

## CLSC 433 - Clinical Microbiology Laboratory

Laboratory will cover methods of detection, isolation, enumeration and identification of human pathogenic microorganisms encountered in the clinical microbiology laboratory. __Credit Hours: 2 hrs _Prerequisite/Corequisite: CLSC432

## CLSC 434 - Advanced Immunohematology

Principles and procedures used in the blood bank. The laboratory is designed to simulate problem situations in the clinical laboratory.
Credit Hours: 3 hrs _Prerequisite:
CLSC335 or permission

## Practicum

An intensive, hands-on clinical experience in routine hematology, coagulation and special techniques at an advanced level. __Credit Hours: 4 hrs _Prerequisite: acceptance into clinical track

## CLSC 452 - Clinical Immunology/ Immunohematology Practicum

An intensive, hands-on clinical experience at an advanced-level of instruction in blood banking, immunology and serology. __Credit Hours: 4 hrs _Prerequisite: acceptance into clinical track

## CLSC 454 - Clinical Chemistry Practicum

An intensive, hands-on clinical experience at an advanced level of instruction in automated chemistry, radioimmunoassay, electrophoresis and toxicology. __Credit Hours: 4 hrs _Prerequisite: acceptance into clinical track

## CLSC 456 - Clinical Microbiology Practicum

An intensive, hands-on clinical experience at an advanced-level of instruction in clinical microbiology. __Credit Hours: 4 hrs _Prerequisite: acceptance into clinical track

## CLSC 459 - Clinical Microbiology Practicum II

This is an intensive introductory lecture and laboratory course highlighting medically important fungi, disease states and laboratory methods of isolation and identification.
__Credit Hours: 3 hrs _Prerequisite: acceptance into clinical track or permission of instructor

## CLSC 477 - Special Topics

Advanced level courses covering specific topics in clinical laboratory sciences not discussed in other clinical laboratory sciences courses. __Credit Hours: 1 hr _Prerequisite: permission of instructor

Advanced level courses covering specific topics in clinical laboratory sciences not discussed in other clinical laboratory sciences courses. __Credit Hours: 2 hrs _Prerequisite: permission of instructor

## CLSC 479 - Special Topics

Advanced level courses covering specific topics in clinical laboratory sciences not discussed in other clinical laboratory sciences courses. __Credit Hours: 3 hrs _Prerequisite: permission of instructor

## CLSC 487 - Cooperative Education in Clinical Laboratory Science

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. __Credit Hours: 3 hrs _Prerequisite: CLSC387, permission of program director _Notes: Offered on a or credit/no-credit basis.

## CLSC 497 - Independent Study

Independent, original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory program faculty member or clinical associate faculty member. __Credit Hours: 1 hr _Prerequisite: permission of the instructor

## CLSC 498 - Independent Study

Independent, original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory program faculty member or clinical associate faculty member. __Credit Hours: 2 hrs _Prerequisite: permission of the instructor

## CLSC 499 - Independent Study

Independent, original endeavors involving library and/or laboratory work under the guidance of a clinical laboratory program faculty member or clinical associate faculty member. __Credit Hours: 3 hrs _Prerequisite: permission of the instructor

## CMT 104 - Introduction to <br> Communication Technology

An introduction to the field of communication technology. Communication theory and the graphic and telecommunication industries. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week.

## CMT 121-Graphic Communication

Preparation and design of graphic media. The theory and application of effective communications. Information collection, analysis and dissemination; survey of the graphic communication industry. _Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week.

## CMT 131 - Introduction to Computer Graphic Systems

Students are provided with opportunities to work on a variety of vector-based, paintbased and timeline-based software applications including the Adobe Suite of applications. Students will learn terminology for graphics, hardware and software. Students will explore applications of graphics to their own field of study. Lecture and laboratory course. __Credit Hours: 3 hrs _Notes: Course does not count for CAD majors.

## CMT 177-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CMT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CMT 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CMT 204-Photographic Communication

Basic functions, principles and applications of photography in graphic communication. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week. _Notes: Students must furnish their own camera and photo materials.

## CMT 205 - Digital Photo-Technology

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. __Credit Hours: 3 hrs

## CMT 207 - Digital Imaging and Reproduction

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. __Credit Hours: 3 hrs _Prerequisite: CMT104 or CMT121

## CMT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CMT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CMT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## CMT 285 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## CMT 286 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## CMT 287 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## CMT 301 - Multimedia Authoring Techniques

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. __Credit Hours: 3 hrs
_Prerequisite: CMT231 or CTAT242

## CMT 304 - Advanced Photographic Communication

Photographic theory and techniques, with particular emphasis upon commercial and industrial applications. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week. _Prerequisite: CMT204 _Notes: The student must furnish a camera and photo materials.

## CMT 305-Communication Transmission Systems

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.
__Credit Hours: 3 hrs

## CMT 305W - Communication <br> Transmission Systems

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. _Credit Hours: 3 hrs

## CMT 318 - Graphic Arts Workshop

Selected topics in the field of graphic arts technology, such as composition, press work, screen process and advanced photomechanics __Credit Hours: 3 hrs

## CMT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CMT 378-Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CMT 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CMT 387 - Co-operative Education

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 Hours: 3 hrs _Prerequisite: department permission _Notes: Credit will not apply toward degree completion. Course is offered on a credit/nocredit basis

## CMT 404 - Photo Communication Workshop

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 __Credit Hours: 3 hrs _Prerequisite:
CMT304

## CMT 408 - Telephone Technology

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. __Credit Hours: 3 hrs _Prerequisite: CMT305

## CMT 409 - Emerging Technologies in Storage and Retrieval

Conventional as well as emerging technologies of information storage and retrieval. Lecture and laboratory. __Credit Hours: 3 hrs

## CMT 421 - Web Publishing Technology

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. __Credit Hours: 3 hrs _Prerequisite:
CMT121/205 _Notes: Not available to students in Continuing Education.

## and Social Change

The social implications of recent and future developments in communication technology. The effects upon education, research and scientific knowledge, business and entertainment. __Credit Hours: 3 hrs

## CMT 436 - Electronic Publishing Technology

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. __Credit Hours: 3 hrs

## CMT 470 - Senior Seminar in Communication Technology

Guest speakers and/or site visitations will be used to illustrate the application of new communication technologies common to business, industrial or governmental environments. __Credit Hours: 2 hrs

## CMT 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CMT 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CMT 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Course is offered on a credit/no-credit basis

## CMT 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. Credit Hours: 1 hrs
Prerequisite: department permission

## CMT 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## CMT 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## CNST 125 - Introduction to Construction

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. __Credit Hours: 2 hrs

## CNST 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## CNST 178 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CNST 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CNST 201 - Construction Systems

Structural systems, associated nonstructural components and considerations appropriate to mechanical, electrical, plumbing and support equipment. Lecture and laboratory course. __Credit Hours: 3 hrs

## CNST 202 - Construction Materials

The characteristics, specifications, and applications of basic construction materials such as stone, concrete, wood, glass, plastics, metals and bituminous products. Lecture and laboratory course. _Credit Hours: 3 hrs Prerequisite: CNST125

## CNST 206 - Surveying

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. __Credit Hours: 3 hrs _Prerequisite: MATH107

## CNST 213 - Construction Safety

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. __Credit Hours: 3 hrs

## CNST 228 - Construction Graphics

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. __Credit Hours: 3 hrs _Prerequisite: CNST125 and CNST201

## CNST 229 - Analysis of Commercial Prints

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. __Credit Hours: 3 hrs _Prerequisite: CNST228

## CNST 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CNST 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## CNST 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CNST 301 - Estimating and Building

The principles and procedures for developing estimates, bids and contracts for residential and commercial construction. __Credit Hours: 3 hrs _Prerequisite: CNST201 and CNST229

## CNST 302 - Contract Documents, Regulations, and Specifications

The different types of construction contracts, construction documents and regulations, the role of specifications, and the project manual
in the construction process. __Credit Hours: 3 hrs _Prerequisite: CNST201, LAW293 and CNST125 or department permission

CNST 303 - Electrical, Mechanical, and Equipment Systems

This course provides an understanding of mechanical, electrical, plumbing, drain-waste-vent, equipment considerations and other specialized nonstructural systems found in commercial buildings. __Credit Hours: 3 hrs _Prerequisite: CNST228

## CNST 304 - Construction Estimating and Bidding

The principles and procedures for developing estimates, bids and contracts for heavy/highway and commercial construction. Computer applications are included. __Credit Hours: 3 hrs _Prerequisite: CNST229 and CNST302

## CNST 361 - Planning and Scheduling

The planning process of the construction industry. Various scheduling systems commonly used within the industry are studied including scheduling software. Credit Hours: 3 hrs _Prerequisite:
CADM105 and CNST229

## CNST 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CNST 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CNST 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided
different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CNST 387 - Cooperative Education in Construction Management

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. _Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Credit applicable to the major in construction management only. Offered on a credit/nocredit basis.

## CNST 403 - Production Control

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. __Credit Hours: 2 hrs _Prerequisite: ACC130, CNST304 and CNST361

## CNST 406 - Construction Law

Common basic legal problems associated with construction contracting. Current areas of concern and their significant implications are covered. __Credit Hours: 3 hrs _Prerequisite: CNST302

## CNST 412 - Fundamentals of Structural Design

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. __Credit Hours: 3 hrs _Prerequisite: PHY221, CNST202 and MATH107

## CNST 426 - Mechanical and Electrical Construction Applications

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 __Credit Hours: 3 hrs _Prerequisite: CNST303 _Notes: Available only to students in the construction management program.

## CNST 436 - Heavy/Highway Construction Contracting

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. __Credit Hours: 3 hrs
_Prerequisite: CNST202/302/304 _Notes:
Available only to students in the construction management program.

## CNST 446 - Senior Seminar on Professional Issues in Engineering, Technology and Construction

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. __Credit Hours: 1 hr

## CNST 450 - Fundamentals of Construction Project Management

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. __Credit Hours: 3 hrs _Prerequisite: ENGL324 (B or better), MGMT384, CNST304 and CNST361

## CNST 477` - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

1 hrs _Prerequisite: department permission

## CNST 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## CNST 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## CNST 487 - Cooperative Education in Construction Management

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.
Credit Hours: 3 hrs _Prerequisite:
CNST387 and department permission
Notes: Graded on a credit/no-credit basis

## CNST 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company _Credit Hours: 1 hrs _Prerequisite: Offered on a credit/no-credit basis.

## CNST 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 2 hrs _Prerequisite: Offered on a credit/no-credit basis.

CNST 496 - Industry-Based Special Topics
Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company _Credit Hours: 3 hrs _Prerequisite: Offered on a credit/no-credit basis.

## CNST 497 - Directed Study in Construction Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hrs _Prerequisite: department permission

## CNST 498 - Directed Study in Construction Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CNST 499 - Directed Study in Construction Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## COB 177 - Special Topics

Team-taught current topics related to career preparation for business and industry
Credit Hours: 1 hr Prerequisite:
department permission

## COB 178 - Special Topics

Team-taught current topics related to career preparation for business and industry

Credit Hours: 2 hrs _Prerequisite: department permission

## COB 179 - Special Topics

Team-taught current topics related to career preparation for business and industry.
Credit Hours: 3 hrs Prerequisite:
department permission

## COB 200 - Introduction to Business

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.
_Credit Hours: 3 hrs

## COB 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 1 hrs

## COB 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## COB 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 3 hrs

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hrs _Prerequisite: department permission

## COB 286 - Preprofessional Internships

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## COB 287 - Preprofessional Internships

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## COB 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## COB 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## COB 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## COB 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## COB 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## COB 497 - Independent Study

Directed study of a problem in business not otherwise treated in department courses.
__Credit Hours: 1 hrs _Prerequisite:
department permission

## COB 498 - Independent Study

Directed study of a problem in business not otherwise treated in department courses. __Credit Hours: 2 hrs _Prerequisite: department permission

## COB 499 - Independent Study

Directed study of a problem in business not otherwise treated in department courses.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## COSC 105 - Everyday Computing and Social Responsibility

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. __Credit Hours: 3 hrs

## COSC 106 - Explorations in Robotics

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. __Credit Hours: 3 hrs

## COSC 111 - Introduction to Programming

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. __Credit Hours: 3 hrs _Prerequisite: MATH104 or equivalent

## COSC 145 - Introduction to FORTRAN Programming

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 Hours: 3 hrs _Prerequisite: minimum ACT score of 19, minimum SAT score of 520 or math placement test in elementary algebra greater than or equal to 53 _Notes: Credit will not be given for more than one of COSC145 and COSC245. Does not count toward computer science major or minor

## COSC 146 - Applied Programming

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. __Credit Hours: 3 hrs _Notes: Does not count towards the computer science minor, major or curriculum.

## COSC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs

## COSC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied $\qquad$ Credit Hours: 2 hrs

## COSC 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hrs

## COSC 205 - Computer Hardware and Software Systems

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. __Credit Hours: 3 hrs _Prerequisite: CADM105 and COSC101

## COSC 211 - Programming Data Structures

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. __Credit Hours: 3 hrs _Prerequisite: COSC111

## COSC 221 - Computer Organization I

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.
__Credit Hours: 3 hrs _Prerequisite:

COSC111, COSC145, COSC245 or IS219 or permission of the School of Engineering Technology

## COSC 231 - Internet-based Computing

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. __Credit Hours: 3 hrs _Prerequisite: COSC111 _Corequisites: COSC211

COSC 245 - Computer Programming and Numeric Methods

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 Hours: 3 hrs
_Prerequisite/Corequisite: MATH121
_Notes: Credit will not be given for more than one of COSC145 and COSC245 Does not count toward computer science major or minor.

## COSC 246 - Programming in C++

Introduction to computers, programming techniques and integrated development environments using C and $\mathrm{C}++$. 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. __Credit Hours: 3 hrs _Prerequisite: 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

COSC 255 - Computer Hardware and Software Systems

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. __Credit Hours: 3 hrs _Prerequisite: CADM105 and COSC101

## COSC 277 - Special Topics

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. __Credit Hours: 1 hr

## COSC 278 - Special Topics

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. __Credit Hours: 2 hrs

## COSC 279 - Special Topics

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. __Credit Hours: 3 hrs

## COSC 303 - Applications in Computer Science

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. __Credit Hours: 3 hrs _Prerequisite: COSC101, COSC211 and junior standing

## COSC 306 - Methods of Teaching Computer Science in the Secondary Schools

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. __Credit Hours: 3 hrs _Prerequisite: COSC342, CURR305 and admission to the teacher education program

## COSC 311 - Algorithms and Data

## Structures

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. __Credit Hours: 3 hrs _Prerequisite: COSC211 and COSC221

## COSC 314 - Computational Discrete Structures

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. __Credit Hours: 3 hrs _Prerequisite: COSC211 and MATH205

## COSC 315 - Symbolic Computing

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 presentation of a project in an electronic classroom is required; lectures (two hours) and supervised lab (two hours). __Credit Hours: 3 hrs _Prerequisite: 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

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. Credit Hours: 3 hrs _Prerequisite: COSC211 and COSC221

## COSC 341 - Programming Languages

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 $\mathrm{C}++$ and nonprocedural languages such as lisp or prolog.. __Credit Hours: 3 hrs _Prerequisite: COSC211 and COSC221_Notes: Credit will not be given for both COSC341 and COSC342

## COSC 342 - Programming Languages for Educators

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; runtime representation of program and data structures. Special emphasis will be placed on education-oriented languages. . __Credit Hours: 3 hrs _Prerequisite: COSC211 and COSC221 _Notes: Credit will not be given for both COSC341 and COSC342

## COSC 374 - Applied Cryptography

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 Kerbos. __Credit Hours: 3 hrs _Prerequisite: MATH170 and COSC211

## COSC 377 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 1 hrs
_Prerequisite: COSC211, COSC221 and department permission

## COSC 378 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 2 hrs _Prerequisite: COSC211, COSC221 and department permission

## COSC 379 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 3 hrs _Prerequisite: $\operatorname{COSC} 211, \operatorname{COSC} 221$ and department permission

## COSC 388 - Cooperative Education in Computer Science

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.. __Credit Hours: 3 hrs _Prerequisite: junior or senior majoring in computer science, any 300 -level course in computer science, admittance to program by application, department permission _Notes: Use on computer science major subject to department permission. Graded on a credit/no-credit basis

## COSC 403 - Seminar and Project Design for Educators

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.

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\text { __Credit Hours: } 3 \text { hrs _Prerequisite: }
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COSC311, COSC342 and senior standing

COSC 405-Switching Theory

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. __Credit Hours: 3 hrs _Prerequisite: COSC211 and COSC221; open to juniors and seniors only

## COSC 421 - Systems Programming

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. __Credit Hours: 3 hrs _Prerequisite: $\overline{\operatorname{COSC}} 221, \operatorname{COSC} 311$ and COSC341

## COSC 422 - Introduction to <br> Microprocessors

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.
Credit Hours: 3 hrs _Prerequisite: COSC221 or department permission

## COSC 423-Computer Operating Systems

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. __Credit Hours: 3 hrs _Prerequisite: COSC221 and COSC311

## COSC 436 - Web Programming

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. __Credit Hours: 3 hrs _Prerequisite: $\operatorname{COSC} 231, \operatorname{COSC} 311$ and COSC341

## COSC 439 - Computing Network Principles

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. __Credit Hours: 3 hrs _Prerequisite: COSC221 and COSC311; COSC314 recommended

## COSC 444 - Foundations of Automata and Languages

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. __Credit Hours: 3 hrs _Prerequisite: COSC311 and COSC314

## COSC 445-Compiler Construction

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. _Credit Hours: 3 hrs _Prerequisite: COSC341 and COSC444

## COSC 456 - Computer Graphics

An in-depth exploration of fundamental concepts of 2D and 3D computer graphics. Topics include: geometric transformations, lighting and shading models, texture mapping, animation, solid modeling, ray-
tracing, hidden-surface removal and the use of graphics in visualization and computer gaming. Course is project oriented, including interactive 3D animations. __Credit Hours: 3 hrs _Prerequisite: $\operatorname{COSC} 311$ and either the completion of MATH122; or MATH205; or minimum ACT score of 28 ; or math placement test in elementary algebra greater than or equal to 93

## COSC 457 - Computer Game Programming

Introduces the central components of 3D computer game programming: game design, using a 3D graphics engine (lighting, shading, textures, etc.), terrain modeling, solid modeling, kinematics, collision detection, real-time animation, simple AI agency, sound integration. __Credit Hours: 3 _Prerequisite: COSC311 and junior or senior standing

## COSC 461 - Heuristic Programming

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.

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\text { __Credit Hours: } 3 \text { hrs _Prerequisite: }
$$

COSC444

## COSC 471 - Database Principles

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.
Credit Hours: 3 hrs _Prerequisite:
COSC444 and COSC341

## COSC 477 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 1 hr _Prerequisite: senior standing, major in computer science and department permission

## COSC 478 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 2 hrs _Prerequisite: senior standing, major in computer science and department permission

## COSC 479 - Special Topics

Covers topics not considered in other courses when the immediate needs of the field, interests of the students and expertise of the faculty coincide. __Credit Hours: 3 hrs _Prerequisite: senior standing, major in computer science and department permission

## COSC 481 - Software Engineering and Senior Project

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 Credit Hours: 3 hrs _Prerequisite: COSC311 and department permission

## COSC 481W - Software Engineering and Senior Project

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. __Click here for course description.

Credits: 3 hrs _Prerequisite: COSC311 and department permission

## COSC 485 - Senior Projects in SAG

The application of simulation, animation and gaming techniques for the completion of a team based final project. Also covered will be a discussion of necessary skills for career success. Guest speakers and site visitations will be part of the class. __Credit Hours: 3 hrs _Prerequisite: SAG470 and junior or senior level standing _Cross-Listed: This course is cross-listed with SAG485.

## COSC 486 - Cooperative Education in Computer Science

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.
_Credit Hours: 1 hrs _Prerequisite:
COSC388 and department permission
_Notes: Use on computer science major subject to department permission. Graded on a credit/no-credit basis.

## COSC 487-Cooperative Education in Computer Science

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.
__Credit Hours: 2 hrs _Prerequisite:
COSC388 and department permission _Notes: Use on computer science major subject to department permission. Graded on a credit/no-credit basis.

## COSC 488 - Cooperative Education in Computer Science

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.. __Credit Hours: 3 hrs _Prerequisite: COSC388 and department permission _Notes: Use on computer science major subject to department permission. Graded on a credit/no-credit basis.

## COSC 493 - Senior Project

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/nocredit basis. __Credit Hours: 1 hr
_Prerequisite: COSC311, COSC341, COSC321, COSC444, senior standing or department permission

## COSC 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: Major in computer science, junior or senior standing and department permission

## COSC 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: Major in computer science, junior or senior standing and department permission

## COSC 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: Major in computer science, junior or senior standing and department permission

## COT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## COT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## COT 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## COT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## COT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## COT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## COT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## COT 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## COT 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## COT 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## COT 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hr

## COT 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## COT 497 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student. __Credit Hours: 1 hr _Prerequisite: department permission

## COT 498 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student. __Credit Hours: 2 hrs _Prerequisite: department permission

## COT 499 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student. __Credit Hours: 3 hrs _Prerequisite: department permission

## COUN 100 - Career Exploration and Decision-Making

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 decisionmaking strategies and processes. Investigation of career planning and resources (people and materials). __Credit Hours: 2 hrs

## COUN 450 - An Introduction: Counseling Concepts and Skills

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.
_Credit Hours: 3 hrs _Notes: Open to
juniors and seniors or by department permission; recommended for those planning a career in the helping professions.

## COUN 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## COUN 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## COUN 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## COUN 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## COUN 498 - Independent Study

Advanced study on an individual basis in
areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## COUN 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## CRM 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CRM 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CRM 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CRM 300 - Criminal Justice

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. __Credit Hours: 3 hrs

## CRM 301-Criminology

The nature, incidence and prevalence of crime. Theory of crime and delinquency causation. __Credit Hours: 3 hrs

## CRM 320 - Criminal Investigation

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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: CRM300

## CRM 321 - Cooperation and Conflict in Society

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with SOCL321

## CRM 331 - Introduction to Corrections

An examination of corrections/punishment in contemporary society, its historical development, structural dependency, relationship to the system of justice and problems of effectiveness. __Credit Hours: 3 hrs _Prerequisite: CRM300

## CRM 332 - Community Corrections

An examination of the limitations of incarceration and the potential of community based alternatives. __Credit Hours: 3 hrs _Prerequisite: CRM300

## CRM 333 - Violence and Society

An introduction to and survey of the multidisciplinary study of violence and society. Issues specifically examined are mass institutions of media, culture and identity formation. __Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with SOCL333

## CRM 337 - Deviance and Society

An introduction to the scientific study of deviance, society's reaction to deviance and the social strategies for managing deviance.
__Credit Hours: 3 hrs _Prerequisite:
SOCL105 _Cross-Listed: This course is cross-listed with SOCL337

## CRM 338 - Women, Crime and Justice

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with WGST338/SOCL338

## CRM 354 - Juvenile Delinquency

The nature, incidence and measurement of juvenile delinquency; theories and causation; juvenile justice philosophies and treatment methods. __Credit Hours: 3 hrs

## CRM 370 - White Collar Crime

An examination of the definitions, laws, causes and policy responses that shape crimes by corporations, government agencies, professionals and others engaged in legitimate occupations. __Credit Hours: 3 hrs

## CRM 377 - Special Topics

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. __Credit Hours: 1 hr

## CRM 378 - Special Topics

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 __Credit Hours: 2 hrs

## CRM 379 - Special Topics

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 Credit Hours: 3 hrs

## CRM 387-Cooperative Education in

## Criminal Justice

Practical experience in agencies or government settings to provide job skills..
__Credit Hours: 3 hrs _Prerequisite:
department permission and junior standing _Notes: Offered on a credit/no-credit basis

## CRM 412 - Law and Society

Law as a social and cultural product; the interrelationships between law and social institutions __Credit Hours: 3 hrs
_Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with SOCL412 _Notes: Not open to those with credit in SOCL412.

## CRM 420 - Drugs, Crime and Criminal Justice

Analysis of legal and illegal drugs and their relation to crime, costs associatedWith 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 __Credit Hours: 3 hrs _Prerequisite: CRM300 and CRM301, sophomore standing

## CRM 431 - Policing in Society

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. _Credit Hours: 3 hrs _Prerequisite: CRM300

## CRM 432 - Police Organization

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. _Credit Hours: 3 hrs _Prerequisite: CRM300

## CRM 447 - Senior Seminar in Criminology

Summations and integrations of the various bodies of criminological knowledge and their applications to policies of crime prevention
and control. __Credit Hours: 3 hrs
_Prerequisite: CRM300, CRM301, SOCL250 and SOCL304

## CRM 447W - Senior Seminar in Criminology

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite:
CRM300, CRM301, SOCL250 and
SOCL304

## CRM 460 - Criminal Law II

The social, political, and historical evolution of criminal procedure with an emphasis on its application with regard to law enforcement and the judiciary. __Credit Hours: 3 hrs

## CRM 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CRM 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CRM 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CRM 487 - Cooperative Education in Criminal Justice

Practical experience in agencies or government settings to provide job skills.
__Credit Hours: 3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## CRM 488 - Field Internship in Criminology and Criminal Justice

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. __Credit Hours: 3 hrs each _Prerequisite: junior standing and department permission; second semester juniors may be admitted by department permission

## CRM 489 - Field Internship in Criminology and Criminal Justice

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. __Credit Hours: 3 hrs each _Prerequisite: junior standing and department permission; second semester juniors may be admitted by department permission

## CRM 497 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 1 hr _Prerequisite: department permission

## CRM 498 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 2 hrs _Prerequisite: department permission

## CRM 499 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 3 hrs _Prerequisite: department
permission

## CRTW 201 - Introduction to Creative Writing

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. __Credit Hours: 3 hrs

## CRTW 335 - Creative Writing

The study and practice of the techniques of creative writing, CRTW 335 focuses on a specific topic or approach to creative writing. Workshops of student writing, creative and critical responses to readings, and attendance at literary and artistic events on campus will be required. _Credit Hours: 3 hrs _Prerequisite: one 200 - or 300 - or 400 -level LITR course

## CRTW 335W - Creative Workshop

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
_Credit Hours: 3 hrs _Prerequisite: one 200or 300- or 400-level LITR course

## CRTW 422 - Writer's Workshop

An advanced seminar workshop in a specific genre, sub-genre or approach to creative writing, CRTW 422 is designed to focus equally on student writing and examination of contemporary literary practices. This class is offered in a variety of topics and may be repeated for additional credit if topic is different. _Credit Hours: 3 hrs _Prerequisite: CRTW335

## CRTW 422W - Writing Workshop

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
Credit Hours: 3 hrs _Prerequisite:
CRTW335

## CRTW 426 - Contemporary Forms

An advanced, reading-intensive course on contemporary and innovative forms of literature, emphasizing structural models, formal techniques and redefinitions of literary conventions. __Credit Hours: 3 hrs _Prerequisite: CRTW201 and any 200- or 300 -level LITR course

## CSIE 150L - Cyanobacteria in Ford Lake/ Huron River Watershed

The focus of the course is an Academic Service-Learning project to characterize the genotype, and conditions for growth of potentially harmful cyanobacteria in Southeast Michigan waterways. __Credit Hours: 1 hr _Corequisites: BIOL110, CHEM121 and CHEM122

## CSIE 177 - Five Miles to Clean Water

Students will investigate various methods for providing clean drinking water in rural developing countries. Challenges include drilling down to the water table, bringing water from miles away, filtering out infectious/toxic contaminants, and water storage. Students will also conduct patent searches and build scaled down models of such devices as the Play Pump, Sono arsenic filter, and the Hippo Water Roller.
__Credit Hours: 1 hr _Corequisites: MATH121 \& PHY223

## CSIE 177 - Inconvenient Truths

Students will evaluate science topics for clarity, accuracy and misleading information using a variety of media sources including science periodicals, TV, and the internet. Students will prepare PowerPoint presentations for the public or a conferencequality poster to communicate complex information and research findings from the Great Lake Environmental Research Laboratory to the general public.

[^1]CSIE 177 - Super-powered Applications

## for Elementary Math and Physics

CSIE students will learn how to integrate physics and mathematics content and demonstrate applications through hands on classroom experiences and experiments.

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__Credit Hours: 1 hr _Corequisites: MATH108 and PHY100
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## CSIE 177L - Groundwater Studies

This course provides students that aspire to be professional scientists with an opportunity to participate in a real-world, environmentbased scientific investigation while still at a very early stage of their studies. Investigations will be conducted in collaboration with a local government agency and will focus on sites in southeast Michigan. __Credit Hours: 1 hr
_Prerequisite/Corequisite: ESSC110 or BIOL110 or CHEM121 Notes: This course will count as credit for Learning Beyond the Classroom.

## CSIE 277 - Coaching Science Olympiad

This special CSIE seminar trains EMU students to become effective Science Olympiad Coaches and to assist area $6^{\text {th }}-12$ ${ }^{\text {th }}$ grade teams. Science Olympiad is an extracurricular program with regional, state and national competitions.
__Credit Hours: 1 hr _Corequisites:
Enrollment in Phase I Content Methods, Literacy and Technology

## CSIE 277 - Digitized Motion Studies

In this cluster, calculus and physics students will apply such principles as vector analysis, integrals, velocity, and Newtonian laws to model real-life scenarios. Students analyze digital videos using sophisticated graphing programs to visualize 3-dimensional motion in 2-dimensional equations.
__Credit Hours: 1 hr _Corequisites: PHY223 and MATH121

## CSIE 277 - Indicator Species- Stoneflies Search for Huron River Watershed and Friends of Rouge River

This course is intended to complement and
integrate the material covered in both BIOL120 Introductory Biology II and CHEM 123/124 General Chemistry II. The course will include participation in the Friends of the Rouge's (FOTR) Annual Stonefly Search as an integral academic service-learning project.
__Credit Hours: 1 hr

## CSIE 377 - Brownbag Organic Analysis

This seminar course will explore relationships between organic chemistry and quantitative analysis, focusing on thermodynamic properties such as pH and pKa , and structures and functions of relevant organic molecules such as indicators for titrations and analytes.
__Credit Hours: 1 hr _Corequisites: CHEM281 and CHEM371

## CSIE 377 - Modeling Concrete Mechanical Systems using MATLAB

An interdisciplinary course on the connections between classical mechanics and differential equations. The seminar will explore the mathematical modeling of various concrete mechanical systems using differential equations and software.

Credit Hours: 1 hr _Corequisites: MATH325 and PHY330

## CTAA 165-Television Laboratory

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. __Credit Hours: 1 hr _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAA 166 - Forensics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 167 - Theatre Practice

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. __Credit Hours: 1 hr

## CTAA 168 - Interpretation

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.) __Credit Hours: 1 hr _Prerequisite: CTAO210 or department permission

## CTAA 169 - Radio Station WQBR

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. __Credit Hours: 1 hr _Prerequisite: CTAT130 and CTAT131; or department permission

## CTAA 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours:
2 hrs _Prerequisite: department permission

## CTAA 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAA 265 - Television Laboratory

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. __Credit Hours: 1 hr _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAA 266 - Forensics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 267 - Theatre Practice

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. __Credit Hours: 1 hr _Prerequisite: The specified positions and prerequisites are: assistant directing and/or stage managing a faculty-directed production.

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.) __Credit Hours: 1 hr _Prerequisite: CTAO210 or department permission

## CTAA 269 - Radio Station WQBR

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. __Credit Hours: 1 hr _Prerequisite: CTAT130 and CTAT131; or department permission

## CTAA 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## CTAA 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAA 365 - Television Laboratory

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. _Credit Hours: 1 hr _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAA 366 - Forensics

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. _Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 367 - Theatre Practice

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. __Credit Hours: 2 hrs

## CTAA 368 - Interpretation

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. _Credit Hours: 3 hrs _Prerequisite: CTAO210 or department permission _Notes: Admission to the activity does not ensure credit. (Available with a focus on oral interpretation of literature for the young.)

## CTAA 369 - Radio Station WQBR

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. _Credit Hours: 1 hr _Prerequisite: CTAT130 and CTAT131; or department permission

## CTAA 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAA 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## CTAA 465 - Television Laboratory

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. _Credit Hours: 1 hr _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAA 466 - Forensics

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. __Credit Hours: 1 hr _Prerequisite:

## CTAA 467 - Theatre Practice

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. __Credit Hours: 1 hr

## CTAA 468 - Interpretation

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. __Credit Hours: 1 hr _Prerequisite: CTAO210 or department permission _Notes: (Available with a focus on oral interpretation of literature for the young.)

## CTAA 469 - Radio Station WQBR

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. __Credit Hours: 1 hr _Prerequisite: CTAT130 and CTAT131; or department permission _Notes: Admission to the activity does not ensure credit.

## CTAA 477-Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAA 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAA 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAA 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAA 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAC 124 - Fundamentals of Speech

More intensive theory and practice in the principles of effective speech composition. __Credit Hours: 3 hrs

## CTAC 177-Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CTAC 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAC 224 - Public Speaking

The characteristics of various types of speeches and speech situations and practice in the preparation and delivery of speeches for various occasions. __Credit Hours: 3 hrs _Prerequisite: CTAS124

## CTAC 225 - Listening Behavior

The study of the behavior, processes and theory of human listening; practice in improving listening skills. __Credit Hours: 3 hrs

## CTAC 226 - Nonverbal Communication

An examination of nonverbal and situational behaviors, relationships, objects and events surrounding speech communication acts.
__Credit Hours: 3 hrs

## CTAC 227 - Interpersonal Communication

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.
__Credit Hours: 3 hrs

## CTAC 260 - Gender Communication

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. Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST260

## CTAC 274 - Intercultural Communication

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. __Credit Hours: 3 hrs

## CTAC 275 - Interracial/Interethnic Communication

The analysis of how ethnocentric attitudes toward perceived racial/ethnic minority group speakers/listeners influence interpersonal communication transactions. __Credit Hours: 3 hrs

## CTAC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CTAC 307 - The Teaching of Speech

Emphasizes the analysis and construction of courses of study, evaluation of textbooks and teaching materials, methods of directing cocurricular 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. __Credit Hours: 3 hrs _Prerequisite:
CTAS124, CURR305 and admission to College of Education

## CTAC 340 - Communication Ethics

This course will examine frameworks for ethics guiding human communication conduct in various contexts including public, interpersonal and organizational settings. Freedom of Speech will be explored as a privilege and responsibility of American life. Historical cases and contemporary trends will be examined in both free speech and ethical studies. __Credit Hours: 3 hrs _Prerequisite: CTAC124

## CTAC 350 - Persuasion

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. __Credit Hours: 3 hrs _Prerequisite: CTAS124

## CTAC 352 - Communication in Negotiation

The course emphasizes the principles and practice of negotiation strategies and techniques in interpersonal and group interactions, grievance handling and collective bargaining. __Credit Hours: 3 hrs _Prerequisite: CTAS124 or department permission

CTAC 354-Organizational

## Communication

The course examines the relationship between organizational structures and communication patterns with an emphasis on individual communication strategies
appropriate in different organizational settings. __Credit Hours: 3 hrs _Prerequisite: CTAS124

## CTAC 356 - Argumentation and Debate

Emphasizes the principles of logical reasoning and oral presentation of reasoned discourse in group situations. Exercise in debate and in general argumentative speaking. __Credit Hours: 3 hrs _Prerequisite: CTAS124

## CTAC 357 - Interviewing as Communication

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 __Credit Hours: 3 hrs _Prerequisite: CTAS124 or department permission

## CTAC 359 - Small Group Communication

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.
__Credit Hours: 3 hrs _Prerequisite:
CTAS124

## CTAC 370 - Nonprofit Organizational Communication

A critical examination of the fundamental differences between communication in a forprofit organization and communication in a nonprofit organization. Students will learn and apply communication skills necessary to effectively and efficiently communicate in a nonprofit organization. __Credit Hours: 3 hrs

## CTAC 372 - Assertive Communication

Individualized approach to study and training in effective assertive communication for social, conversational and career-oriented situations. __Credit Hours: 3 hrs _Prerequisite: CTAS124 or department permission
department permission

## CTAC 373 - Family Communication

Descriptive and theoretical study of communication in families with emphasis on the influence of family communication on individuals. _Credit Hours: 3 hrs _Prerequisite: CTAS124 and CTAC227

## CTAC 376 - Communication and Conflict Resolution

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. __Credit Hours: 3 hrs

## CTAC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs

## CTAC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAC 387 - Cooperative Education in

 CommunicationOne semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
Credit Hours: 1 hr _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and

## CTAC 388 - Cooperative Education in Communication

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 2 hrs _Prerequisite: nine
credit hours in concentration, approval by
Cooperative Education Office and department permission

## CTAC 389 - Cooperative Education in Communication

Credit Hours: 3 hrs _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission _Notes: One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.

## CTAC 407 - Directing the Secondary Communication and Theatre CoCurriculum

The course provides an exploration of the philosophy, pedagogy, organization and administration of co-curricular acivities associated with communication and theatre arts at the secondary level. Students will study current trends in the Michigan secondary education communication and theatre co-curriculum and acquire skills essential to directing such programs. __Credit Hours: 2 hrs _Prerequisite: CTAS124

## CTAC 440 - Public Discourse Analysis

The course provides a critical study of public communication focusing on the role of advocates and their messages in an open society. __Credit Hours: 3 hrs _Prerequisite: CTAS124 and junior/senior standing

## CTAC 460 - Theories of Speech Criticism

A study of the theoretical and critical works from various eras of western culture.

Credit Hours: 3 hrs _Prerequisite:
CTAS124 and junior/senior standing

## CTAC 475 - Research in Speech Communication

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. __Credit
Hours: 3 hrs _Prerequisite: CTAS124 and junior/senior standing

## CTAC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours: 1 hr

## CTAC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CTAC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAC 485-Communication Theory

Communication Theory offers an analysis and application of classic and current theories in the communication discipline. __Credit Hours: 3 hrs _Prerequisite: CTAS124 and junior/senior standing

## CTAC 487 - Internship in Communication

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: 20 credit hours of concentration courses and department permission

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: 20 credit hours of concentration courses and department permission

CTAC 489 - Internship in Communication
One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off campus facilities. __Credit Hours: 3 hrs _Prerequisite: 20 credit hours of concentration courses and department permission

## CTAC 495 - Communication Capstone

This course requires students to integrate knowledge obtained throughout the degree program and demonstrate communication competency through the development of a significant academic service-learning project. Students will also assess their own knowledge and skills and begin preparing for life after graduation. __Credit Hours: 3 hrs _Prerequisite: senior level Communication Majors only, CTAS 124 and one of the following: CTAC440, CTAC460, CTAC475 or CTAC485

## CTAC 497 - Independent Study

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off campus facilities. __Credit Hours: 1 hr _Prerequisite: 20 credit hours of concentration courses and department permission

## CTAC 498 - Independent Study

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off campus facilities. __Credit Hours: 2 hrs _Prerequisite: 20 credit hours of concentration courses and department permission

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAO 102 - Voice Development

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. __Credit Hours: 1 hr

## CTAO 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAO 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAO 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAO 202 - Voice Development

Advanced laboratory exercises and specialized projects: pronouncing foreign terms for professional speaking. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAO 205 - Voice and Articulation

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. __Credit Hours: 3 hrs

## CTAO 210 - Interpretative Reading

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. __Credit Hours: 3 hrs

## CTAO 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## CTAO 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAO 279-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAO 302 - Voice Development

Advanced laboratory exercises and specialized projects: energetic vocal skills for theatre/interpretation. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAO 310 - Ensemble Interpretation

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. __Credit Hours: 3 hrs _Prerequisite: CTAO210 Interpretative Reading or departmental permission

## CTAO 311 - Interpretation of Prose

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. _Credit Hours: 3 hrs

## CTAO 314 - Interpretation of Drama

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. Credit Hours: 3 hrs

## CTAO 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAO 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs

## CTAO 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAO 387 - Cooperative Education in Oral Interpretation

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period. Credit Hours: 1 hr _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and

## CTAO 388 - Cooperative Education in Oral Interpretation

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 2 hrs _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission

## CTAO 389 - Cooperative Education in Oral Interpretation

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period. __Credit Hours: 3 hrs _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission

## CTAO 402 - Voice Development

Advanced laboratory exercises and specialized projects: skills, theory and individualized projects. __Credit Hours: 1 hr

## CTAO 404 - Dynamic Speaking Skills

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. __Credit Hours: 3 hrs _Prerequisite: three courses in the department including either CTAO102 or CTAO205; or take CTAO402 concurrently

## CTAO 405 - Voice and Dialects

Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects. __Credit Hours: 3 hrs _Prerequisite: CTAO205 or department permission

## CTAO 410-Oral Interpretation of Shakespeare

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. _Credit Hours: 3 hrs Prerequisite: CTAO210, or CTAR158, or CTAO210, or departmental permission

## CTAO 411 - Advanced Problems in Interpretation

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. _Credit Hours: 3 hrs _Prerequisite: six hours of oral interpretation or department permission

## CTAO 412-Oral Interpretation of Poetry

The application of the principles of oral interpretation to the reading of poetry, with emphasis on modern and contemporary poetry. __Credit Hours: 3 hrs _Prerequisite: CTAO210

## CTAO 415 - Performing Oral Narratives

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. __Credit Hours: 3 hrs _Prerequisite: Three credit hours in CTAO (interpretation/performance studies) or department permission

## CTAO 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAO 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied $\qquad$ Credit Hours: 2

## CTAO 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied $\qquad$ Credit Hours: 3 hrs

## CTAO 487 - Internship in Interpretation

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: 20 credit hours of concentration courses and department permission

## CTAO 488 - Internship in Interpretation

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: 20 credit hours of concentration courses and department permission

## CTAO 489 - Internship in Interpretation

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 3 hrs
_Prerequisite: 20 credit hours of concentration courses and department permission

## CTAO 497 - Independent Study

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. _Credit Hours: 1 hr _Prerequisite: department permission

## CTAO 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAO 499- Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAR 106 - Introduction to the Performing Arts

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. __Credit Hours: 3 hrs

## CTAR 150 - Introduction to Theatre

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. __Credit Hours: 3 hrs

## CTAR 150L - Introduction to Theatre

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. __Credit Hours: 3 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

CTAR 151 - African American Theatre: An Introduction

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.
__Credit Hours: 3 hrs

## CTAR 152 - Technical Theatre: Scenery and Lighting

The comprehensive study and application of design fundamentals and basic technology for theatrical scenery and lighting. __Credit Hours: 2 hrs

## CTAR 153-Technical Theatre: Costume and Makeup

The comprehensive study and application of design fundamentals and basic technology for theatrical costuming and makeup. __Credit Hours: 2 hrs

## CTAR 155 - Producing Theatre

A comprehensive introduction to theatrical production organization: business management, direction and technical production. Laboratory hours by appointment. __Credit Hours: 3 hrs _Prerequisite: CTAR150 strongly recommended for majors and minors

## CTAR 157-Beginning Acting

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 selfawareness, relationships, character analysis, improvisation, scene study and acting exercises. Attention will be given to overcoming stage fright. For nontheatre majors only. __Credit Hours: 3 hrs

## CTAR 158 - Fundamentals of Acting

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. __Credit Hours: 3 hrs

## CTAR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAR 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CTAR 222 - Drama and Play in the Human Experience

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. __Credit Hours: 3 hrs

## CTAR 227-Grant Writing for the Arts

This course provides students with the knowledge and skills needed to be successful in the development and submission of proposals to public and private funding agencies in support of arts and cultural programs. In this class students develop contemporary grant writing skills by participating in all phases of the grant process from research to program assessment.

## Credit Hours: 2 hrs

## CTAR 251 - African American Theatre: Creative Problems

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. _Credit Hours: 3 hrs

## CTAR 252 - Stagecraft

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. _Credit Hours: 3 hrs _Prerequisite:
CTAR152; CTAR155 strongly recommended for department majors and minors

## CTAR 254 - Stage Makeup

The theory and techniques of theatrical makeup. Laboratory hours to be arranged.
__Credit Hours: 1 hr

## CTAR 258 - Movement for Actors

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, scripting movement design and actual performance. __Credit Hours: 3 hrs

## CTAR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAR 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3

## CTAR 322 - Theatre for Children

An introductory study of the development, philosophy and techniques of theatre for the young. __Credit Hours: 3 hrs

## CTAR 323 - Improvising and Role-Play

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. __Credit Hours: 3 hrs

## CTAR 324 - Oral Interpretation of Children's Literature

Selection and evaluation of literature for oral interpretation with and for young people. Focus is on the use of narrative prose and folktales. __Credit Hours: 3 hrs

## CTAR 326 - Drama/Theatre for Persons with Disabilities

Study of principles, theories and practices of developmental drama/theatre as related to physically challenged persons. Application to educational, recreational and institutional settings stressed. __Credit Hours: 2 hrs

## CTAR 327 - Plays for the Young

A study of dramatic literature for the young from developmental and artistic viewpoints in the total educational experience of children and adolescents. __Credit Hours: 3 hrs

## CTAR 329 - Performing Theatre for the

 YoungStudents 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. __Credit Hours: 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. Credit Hours: 3 hrs Prerequisite: CTAR252, CTAR155 or department permission

## CTAR 355 - Play Direction

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. __Credit Hours: 3 hrs _Prerequisite: CTAR155 or department permission

## CTAR 358 - Characterization

The creation of character and characterization by the actor. Analysis, development and performance of roles studied in depth.
Credit Hours: 3 hrs _Prerequisite:
CTAR157 or CTAR158

## CTAR 360 - Dramatic Composition

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAR 361 - Dramatic Writing

Intensive concentration on the writing of a significant example of adult or children's drama for the stage or the broadcast media. _Credit Hours: 2 hrs _Prerequisite:
department permission

## CTAR 362 - Stage Lighting

Stage lighting; historical development, basic electrical theory, switchboards and lighting instruments, color theory, principles and practices in stage lighting. Laboratory hours to be arranged. Credit Hours: 2 hrs _Prerequisite: CTAR252, CTAR155 or department permission

CTAR 363 - Stage Costume: History and Theory

A survey of the principles and practices of stage costuming from antiquity to the present. Credit Hours: 3 hrs _Prerequisite: department permission

## CTAR 364 - Stage Costume: Design and Construction

The fundamentals of designing theatrical costumes and a study of specific construction problems found in the making of period costumes. __Credit Hours: 3 hrs
_Prerequisite: department permission

## CTAR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CTAR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAR 387 - Cooperative Education in Arts Management

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 1 hr _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission

## CTAR 388 - Cooperative Education in Arts Management

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 2 hrs _Prerequisite: nine
credit hours in concentration, approval by
Cooperative Education Office and department permission

## CTAR 389-Cooperative Education in Arts Management

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 3 hrs _Prerequisite: nine
credit hours in concentration, approval by
Cooperative Education Office and
department permission

## CTAR 421 - Musical Theatre Styles

Musical Theatre Styles is a performance course in which students address specific genre, style, or specific period of Musical Theatre with regard to performance. Students match their existing skills and talents with the chosen genre, style, or period through research, presentations, rehearsal and technique development - culminating in a showcase performance for an invited audience. __Credit Hours: 2 hrs _Prerequisite: CTAR461; department permission _Notes: This course may be repeated for credit.

## CTAR 426 - Fund Raising in the Arts

Fund Raising in the Arts provides a comprehensive analysis of what students need to know about securing donations for Non-profit Art Organizations. Units include: managing the giving process, securing the gift, relationship building, donor research, volunteer involvement, and ethical accountability. _Credit Hours: 2 hrs _Prerequisite: sophomore, junior or senior standing

## CTAR 427 - Grant Writing for the Arts

This course provides students with the knowledge and skills needed to be successful in the development and submission of
proposals to public and private funding agencies. In this class students develop contemporary grant writing skills by participating in all phases of the grant process from research to program assessment
Credit Hours: 2 hrs

## CTAR 429 - History and Theory of Developmental Drama/Theatre

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.
__Credit Hours: 3 hrs

CTAR 450 - History of the Theatre to 1642
This course provides a culturally based survey of historical trends in world theatre, from antiquity to 1642 . Specific attention will be paid to performance style, production practice, theatre architecture and dramatic literature. The course will investigate how theatre both reflects and has evolved via respective historical periods. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## CTAR 451 - History of the Theatre 1642 to the Present

This course provides a culturally based survey of historical trends in world theatre, from 1642 to the present. Specific attention will be paid to performance style, production practice, theatre architecture and dramatic literature. The course will investigate how theatre both reflects and has evolved via respective historical periods. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## CTAR 452 - Arts Management

A study of managerial practices of arts organizations and agencies. Emphasis on facility planning, personnel, income sources, promotion, budget development and management. __Credit Hours: 3 hrs

## CTAR 453 - Marketing the Arts

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. __Credit Hours: 3 hrs

## CTAR 453W - Marketing the Arts

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description.

Credits: 3 hrs

## CTAR 454 - Law, Public Policy and the

 ArtsExamination 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. _Credit Hours: 3 hrs _Prerequisite: 12 hours in arts management or department permission

## CTAR 455 - Dramaturgy

Theoretical and applied investigation of dramatic texts in historical, literary and performative contexts as it contributes to collaborative production of theatre. Special attention will be given to research strategies, modes of textual analysis, genres of writing for/about theatre and dramaturgy's utility within various aspects of production. _Credit Hours: 3 hrs _Prerequisite: junior or senior level standing and CTAR450 or CTAR451 or department permission

## CTAR 457 - Audition

Intensive study in the preparation of audition material for a wide range of stylistic demands that exist within the professional theatre.
Credit Hours: 2 hrs _Prerequisite:
CTAR157, CTAR158, CTAR358, CTAR461 or CTAR464

## CTAR 458-Acting/Directing/Production Intensive I

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. __Credit Hours: 3 hrs _Prerequisite: CTAR355 and 12 hours in theatre or department permission

## CTAR 459 - Acting/Directing/Production Intensive

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. __Credit Hours: 2 hrs Prerequisite: CTAR355 and 12 hours in theatre or department permission

## CTAR 461 - Musical Theatre Acting

Analysis and application of the performance skills needed by the actor/singer in musical theatre. __Credit Hours: 2 hrs _Prerequisite: nine hours in theatre arts or department permission

## CTAR 462 - Directors on Directing

Study of select, noted stage directors past and present. __Credit Hours: 2 hrs _Prerequisite: CTAR355 and nine hours in theatre arts or department permission

## CTAR 463 - The American Musical Stage

Character, production, style in the American musical including concept musicals, operetta, golden age, rock, and musical revues Historical survey and production workshop format. __Credit Hours: 3 hrs _Prerequisite: junior standing or above

## CTAR 464 - Style for the Actor

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. __Credit Hours: 3 hrs _Prerequisite: CTAR158 or CTAR157; open to senior, junior and graduate students with permission

## CTAR 471 - Musical Theatre Workshop

This course is a laboratory-performance course in which students prepare performances of landmark musicals. The course promotes the development of skills necessary for students to effectively address the technical and stylistic demands of musicals as defined by period or genre. Particular attention is given to contemporary performance standards in structured production. The class culminates in a public performance. __Credit Hours: 1 hr _Prerequisite: CTAR461 _Notes: May be repeated for credit.

## CTAR 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## CTAR 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTAR 487 - Internship in Arts Management

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: 20 credit hours of concentration courses and
department permission

## CTAR 488 - Internship in Arts Management

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 2 hrs
_Prerequisite: 20 credit hours of concentration courses and department permission

## CTAR 489 - Internship in Arts Management

One semester of practical, on-the-job work experience and training (four hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 3 hrs
_Prerequisite: 20 credit hours of concentration courses and department permission

## CTAR 496 - Senior Seminar

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. __Credit Hours: 2 hrs _Prerequisite: open only to department seniors or by department permission

## CTAR 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAR 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAR 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAR 504-Oral Interpretation of Literature and Language with the Young

Emphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## CTAR 522-TIE: Theatre-in-Education

A study of the origin, principles and forms of TIE: Theatre-in-Education. Students will have opportunities to plan and evaluate TIE sessions. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## CTAR 523 - Puppetry: Catalyst in Human Development

Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## CTAR 524 - Developmental Drama/Theatre for Persons with Disabilities

Study of principles, theories and practices of developmental drama/theatre for persons with disabilities. Applications to educational, recreational and institutional settings will be stressed. __Credit Hours: 2 hrs

CTAR 525 - Developmental Drama/Theatre in Recreational Settings

An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H Clubs. Notes: This is a graduate course in an undergraduate program.

## CTAR 528-Developmental Drama/Theatre in Religion

Consideration of and experience in play developmental drama/theatre for various religious settings and purposes. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

CTAR 565 - Studies in Drama/Theatre for the Young

Studies in the history, theory and techniques of drama and theatre for/with the young.
__Credit Hours: 2 hrs _Prerequisite:
CTAR323 or CTAR501 or CTAR657, and either CTAR322 or CTAR658 _Notes: This is a graduate course in an undergraduate program.

## CTAT 130 - Introduction to Electronic Media

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. __Credit Hours: 3 hrs

## CTAT 131 - Introduction to Audio Production and Direction

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.
__Credit Hours: 2 hrs

## CTAT 132 - Introduction to Video Production and Direction

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. __Credit Hours: 2 hrs _Prerequisite: CTAT131

## CTAT 141 - Audio and Video Production for Nonmajors

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 preproduction. __Credit Hours: 3 hrs

## CTAT 145 - Introduction to Film Appreciation

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. __Credit Hours: 3 hrs

## CTAT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAT 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied _Credit Hours: 3 hrs

## CTAT 231 - Audio Recording Techniques

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.
__Credit Hours: 3 hrs _Lecture/Lab Hours:
Two regular lecture hours and two hours of laboratory per week. Fieldwork projects arranged. Laboratory fee. _Prerequisite: CTAT130 and CTAT131; or department permission

## CTAT 236 - History and Criticism of Radio and Television

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. __Credit Hours: 3 hrs
_Prerequisite: CTAT130

CTAT 241 - Radio-Television-Film Announcing
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. __Credit Hours: 3 hrs

## CTAT 245-A Survey of American Cinema

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. __Credit Hours: 3 hrs _Prerequisite: CTAT145 or department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTAT 278-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CTAT 331 - Intermediate Radio Production and direction

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. __Credit Hours: 3 hrs _Prerequisite: CTAT130, CTAT131 and CTAT132 or CTAT141; or department permission

## CTAT 332 - Intermediate Television Production and Direction

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. __Credit Hours: 3 hrs _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAT 333 - Fundamentals of Electronic Moviemaking

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. _Credit Hours: 3 hrs _Prerequisite: CTAT130, CTAT131 and CTAT132; or department permission

## CTAT 334 - Radio-Television News

A study of the principles, techniques and forms of broadcast journalism. Emphasis is placed on broadcast news writing, editing, and delivery. __Credit Hours: 3 hrs _Prerequisite: JRNL215 for journalism majors/minors only

## CTAT 335 - Studies in Film

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 indepth approach. __Credit Hours: 3 hrs _Prerequisite: CTAT145 _Cross-Listed: .

## CTAT 336 - Studies in Electronic Media

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 __Credit Hours: 3 hrs _Prerequisite: CTAT130 or department permission

## CTAT 341 - Radio-Television-Film Dramatic Performance

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. __Credit Hours: 3 hrs _Prerequisite: CTAT241, CTAR158 or department permission

## CTAT 344 - Continuity Writing for Electronic Media

A study of the nondramatic writing forms for electronic media, including commercials, public service announcements, interview programs and documentaries. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTAT 344W - Continuity Writing for Electronic Media

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.

## CTAT 345 - American Film Genres

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. __Credit Hours: 3 hrs _Prerequisite: CTAT145 or department permission

## CTAT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## CTAT 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## CTAT 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CTAT 387 - Cooperative Education in Radio-TV-Film

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
_Credit Hours: 1 hr _Prerequisite: nine hours in concentration, approval by

Cooperative Education Office and department permission

## CTAT 388 - Cooperative Education in Radio-TV-Film

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
_Credit Hours: 2 hrs _Prerequisite: nine hours in concentration, approval by Cooperative Education Office and department permission

## CTAT 389 - Cooperative Education in Radio-TV-Film

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 3 hrs _Prerequisite: nine hours in concentration, approval by Cooperative Education Office and department permission

## CTAT 431 - Advanced Radio Production and Direction

A continuation of CTAT331. Advanced theory and practical experience in production of longer, more complex dramatic and nondramatic material for radio. __Credit Hours: 3 hrs _Prerequisite: CTAT130 and CTAT132

## CTAT 432 - Advanced Television Production and Direction

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.
__Credit Hours: 3 hrs _Prerequisite:
CTAT332 or department permission

## CTAT 433-Advanced Electronic Moviemaking

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.

Credit Hours: 3 hrs _Prerequisite:
CTAT333 and department permission

## CTAT 444 - Dramatic Scriptwriting for Visual Media

This course introduces the fundamentals, both form and content, of writing fiction for the screen. Principles and conventions of episodic drama, situation comedy, made-forTV 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. __Credit Hours: 3 hrs _Prerequisite: ENGL121

## CTAT 445 - Film Theory and Criticism

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. __Credit Hours: 3 hrs _Prerequisite: CTAT145

## CTAT 446-Contemporary Problems in Electronic Media

A study of contemporary issues and problems affecting the electronic media industries, including cultural influences, programming, new technologies, government regulation and research. __Credit Hours: 3 hrs _Prerequisite: CTAT130

## CTAT 447 - Radio-Television Station Management

Study of station management in the areas of advertising, programming, personnel, applied research and public relations. __Credit Hours: 3 hrs _Prerequisite: CTAT130

## CTAT 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 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 __Credit Hours: 2 hrs

## CTAT 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## CTAT 487 - Internship in Radio-TV-Film

One semester of practical, on-the-job work experience and training ( 10 hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: 20 hours of concentration courses and department permission

## CTAT 488 - Internship in Radio-TV-Film

One semester of practical, on-the-job work experience and training ( 10 hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: 20 hours of concentration courses and department permission

## CTAT 489 - Internship in Radio-TV-Film

One semester of practical, on-the-job work experience and training ( 10 hours per week minimum) at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: 20 hours of concentration courses and department permission

## CTAT 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## CTAT 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTAT 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTWE 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTWE 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hr _Prerequisite: department permission

## CTWE 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTWE 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## CTWE 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided
different topics are studied. __Credit Hours: 2 hrs

## CTWE 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## CTWE 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities __Credit Hours: 1 hr _Prerequisite: department permission.

## CTWE 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities __Credit Hours: 2 hrs _Prerequisite: department permission

## CTWE 287-Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities __Credit Hours: 3 hrs _Prerequisite: department permission

## CTWE 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTWE 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTWE 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## CTWE 387-Co-operative Education

Credit Hours: 3 hrs

## CTWE 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CTWE 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CTWE 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CTWE 487-Co-operative Education

Credit Hours: 3 hrs

## CTWE 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

## CTWE 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## CURR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CURR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## CURR 214 - The Developing Child in ECE

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. __Credit Hours: 3 hrs _Prerequisite: PSY101 and sophomore standing

## CURR 215 - The Developing Professional in ECE

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 __Credit Hours: 2 hrs _Prerequisite: PSY101 and sophomore standing

## CURR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CURR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CURR 304 - Curriculum and Methods: Elementary

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. __Credit Hours: 3 hrs _Prerequisite: EDPS322 or EDPS325; admission to the teacher education program

## CURR 305-Curriculum and Methods: Secondary

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 experience in public schools in addition to the regularly scheduled hours. __Credit Hours: 3 hrs _Prerequisite: EDPS322 or EDPS325; admission to the teacher education program

## CURR 314 - Infants and Toddlers in ECE

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.

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\text { __Credit Hours: } 3 \text { hrs _Prerequisite: }
$$

CURR214 and CURR215

## CURR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## CURR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CURR 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## CURR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## CURR 486 - Internship in Teacher Education

Directed experience involving a field placement in curriculum. __Credit Hours: 1 hr _Prerequisite: department permission

## CURR 488 - Internship in Teacher Education

Directed experience involving a field placement in curriculum. __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 489 - Internship in Teacher Education

Directed experience involving a field placement in curriculum. _Credit Hours: 3 hrs _Prerequisite: department permission

## CURR 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

## CURR 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## CURR 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## DANC 100 - Ballet I

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.
__Credit Hours: 2 hrs

## DANC 101 - Jazz I

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. __Credit Hours: 2 hrs

## DANC 102 - Modern Dance Fundamentals

Introduces the theory and technique of modern dance at the beginning level for the non-major 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.
__Credit Hours: 3 hrs

## DANC 103 - Tap I

Introduces the theory and technique of tap at the beginning level for the non-major student. Will develop and maintain tap technique and foster critical understanding of tap as an historical and contemporary art form.
__Credit Hours: 2 hrs

## DANC 104 - Hip-Hop Dance

An introduction to the theory and technique of hip-hop dance at the beginning level for the non-dance major student. Develops hiphop technique and fosters understanding of hip-hop as a contemporary art form. Taught as a lecture/laboratory course. __Credit

Hours: 2 hrs

## DANC 105-African Dance

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.
__Credit Hours: 2 hrs

## DANC 106 - Introduction to the Performing Arts

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. __Credit Hours: 3 hrs

## DANC 107-Rhythmic Analysis and Dance Accompaniment

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. __Credit Hours: 3 hrs

## DANC 108-Classical Ballet Technique I for Dance Majors/Minors

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.
__Credit Hours: 3 hrs

## DANC 109 - Classical Ballet Technique II for Dance Majors/Minors

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. __Credit Hours: 3 hrs _Prerequisite: Dance major/minor, DANC108 or equivalent and/or permission

DANC 110 - Modern Dance I for Dance Majors/Minors

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.
__Credit Hours: 3 hrs

## DANC 111 - Modern Dance II for Dance Majors/Minors

A lecture/laboratory class that develops the theory and technique of modern dance and fosters critical understanding of modern as an art form at the dance major/minor level.
__Credit Hours: 3 hrs _Prerequisite: Dance major/minor;DANC110 or equivalent and/or permission

## DANC 112 - Pilates Mat Exercises

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. __Credit Hours: 2 hrs _Lecture/Lab Hours: Class is conducted in a lecture/laboratory format.

## DANC 177-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## DANC 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DANC 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DANC 200 - Ballet II

The continuance of beginning/intermediate ballet technique and theory for the nonmajor student. __Credit Hours: 2 hrs _Prerequisite: DANC100 and/or instructor permission

## DANC 201 - Jazz II

The continuance of beginning/intermediate Jazz theory and technique for the nonmajor student. __Credit Hours: 2 hrs _Prerequisite: DANC101 and/or instructor permission

## DANC 202 - Modern Dance II

The continuance of beginning/intermediate modern theory and technique for the nonmajor student. __Credit Hours: 2 hrs _Prerequisite: DANC102 and/or instructor permission

## DANC 208-Classical Ballet Technique III

Theory and technique of intermediate classical ballet. __Credit Hours: 3 hrs _Prerequisite: Dance major/minor, DANC109 or equivalent and/or permission

## DANC 209-Classical Ballet Technique IV

A continuation of the theory and technique of advanced and intermediate classical ballet.
__Credit Hours: 3 hrs _Prerequisite: Dance major/minor, DANC208 or equivalent and/or permission

## DANC 210 - Modern Dance Technique III

A continuation of DANC111. The theory and technique of intermediate modern dance. __Credit Hours: 3 hrs _Prerequisite: Dance major/minor; DANC111 or equivalent, and/or department permission.

## DANC 211 - Modern Dance Technique 111

A continuation of DANC210. The theory and technique of modern dance. __Credit Hours: 3 hrs _Prerequisite: Dance major/minor; DANC210 or equivalent, and/or department permission

## DANC 245 - Elements of Dance Composition

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. __Credit Hours: 3 hrs _Prerequisite: DANC107, DANC111 or department permission.

## DANC 255 - Dance Production

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. __Credit Hours: 3 hrs

## DANC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## DANC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DANC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DANC 320 - Dance Workshop

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. __Credit Hours: 1 hr

## DANC 331 - Service Teaching-Ballet

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. __Credit Hours: 1 hr

## DANC 333 - Service Teaching-Modern Dance

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. __Credit Hours: 1 hr

## DANC 350 - History of Dance

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 __Credit Hours: 3 hrs _Prerequisite: junior standing or departmental permission.

## DANC 354 - Methods and Materials in Teaching of Dance

A study of the methods and the use of materials in the teaching of dance idioms K12. Modes and models that facilitate learning, lesson planning and vertical progression. Experiences in teaching and field observations. __Credit Hours: 3 hrs

## DANC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## DANC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DANC 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DANC 422 - Dance Workshop

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. __Credit Hours: 2 hr

## DANC 450 - Advanced Dance Composition

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. __Credit Hours: 4 hrs _Prerequisite: DANC245

## DANC 455 - Seminar in Dance

Current literature and dance research, trends in dance education and developments in contemporary concert dance. Lecturediscussion. __Credit Hours: 2 hrs _Prerequisite: DANC250, DANC450 or department permission

## DANC 456 - Creative Dance for Children

Goals, concepts, materials and experiences to teach children's creative dance. __Credit Hours: 2 hrs

## DANC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## DANC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## DANC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## DANC 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## DANC 498 - Directed Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## DANC 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## DS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## DS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DS 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DS 265 - Business Statistics I

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. __Credit Hours: 3 hrs _Prerequisite: Math09B or higher math course

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## DS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DS 317 - System Simulation

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. __Credit Hours: 3 hrs _Prerequisite: IS215 and DS265

## DS 367 - Business Statistics II

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. __Credit Hours: 3 hrs _Prerequisite: DS265

## DS 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DS 387 - Cooperative Education in Decision Science

Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines __Credit Hours: 3 hrs _Prerequisite: completion of three hours in decision science systems area and department permission _Notes: Admittance by application only. Offered on a credit/nocredit basis for general elective credit only

## DS 465 - Applied Linear Statistical Models

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 __Credit Hours: 3 hrs _Prerequisite: DS265

## DS 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## DS 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## DS 479 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## DS 487-Cooperative Education in

## Decision Science

Four months of full-time employment at a business or public organization to impart practical experience in decision science disciplines __Credit Hours: 3 hrs
_Prerequisite: DS387; department permission
_Notes: Admittance by application only.

## DS 497 - Independent Study

Directed study of a problem or group of problems in decision science. __Credit Hours: 1 hr _Prerequisite: department permission

## DS 498 - Independent Study

Directed study of a problem or group of problems in decision science. __Credit Hours: 2 hrs _Prerequisite: department permission

## DTC 101 - Fundamentals of Personal Nutrition

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. __Credit Hours: 3 hrs

## DTC 108 - Careers in Nutrition and Dietetics

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. __Credit Hours: 2 hrs _Notes: Course previously listed as DTC 301 , therefore student could not earn credit for both DTC108 and DTC301.

## DTC 155 - Fundamentals of Healthy Lifestyles

Current nutrition strategies to promote fitness and a healthy lifestyle. $\qquad$ Credit Hours: 2 hrs

## DTC 177 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## DTC 178 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs
_Prerequisite: department permission

## DTC 179 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## DTC 201 - Nutrition Perspectives

Application of nutrition concepts and recommendations for health maintenance. __Credit Hours: 3 hrs _Notes: Not open to students who take DTC202, DTC203 or DTC204.

## DTC 202 - Principles of Human Nutrition

A study of the functions and sources of nutrients as well as their role in health; topics include digestion, absorption and metabolism of energy nutrients; vitamin and mineral structure and function; energy balance and weight maintenance; eating disorders; nutrition and disease; food safety; and the world food situation. __Credit Hours: 3 hrs _Prerequisite: CHEM121/122 _Notes: Not open to students who take DTC201, DTC203 or DTC204.

## DTC 203 - Nutrition for Health

## Professionals

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. __Credit Hours: 3 hrs _Prerequisite: CHEM120; _Corequisites: ZOOL202

## DTC 204 - Sports Nutrition

Study of sources, functions, digestion, absorption and metabolism of nutrients. Emphasis on diet in athletic training and exercise science. __Credit Hours: 3 hrs _Prerequisite: CHEM120 _Notes: Open only to sports medicine majors.

## DTC 251 - Experimental Foods

Nature and reactions of food explained in terms of chemical composition, microbial flora and manipulative practices. __Credit Hours: 4 hrs _Prerequisite: CHEM121/122 and MICR328

## DTC 277 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## DTC 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## DTC 279 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## DTC 302 - Nutrient Metabolism: Macronutrients

A discussion of the biochemical and metabolic functions of carbohsrates, fats and proteins. Emphasis is on the cellular reactions and their relationships to human nutrition, health and disease. __Credit Hours: 3 hrs _Prerequisite: DTC202, CHEM351 and

## DTC 330 - Nutrition Therapy I

Students will be introduced to the Nutrition Care Process, components of nutrition screening and assessment; topics in medical nutrition therapy relevant to gastrointestinal, cardiovascular, diabetes and pulmonary disease will be included as will an introduction to renal disease, acid-based balance and nutrition support with emphasis with an emphasis on enternal support. Credit Hours: 3 hrs _Prerequisite: DTC202, CHEM351 and department permission _Notes: Open only to dietetics majors and nutrition minors.

## DTC 331 - Nutrition Therapy I Experience

Supervised practice experience in the medical nutrition therapy professional environment. Emphasis is on nutrition assessment utilizing the Nutrition Care Process Model and ADI charting system. __Credit Hours: 2 hrs _Prerequisite: DTC202, CHEM351,
ZOOL326 and department permission _Notes: Only open to Dietetics majors.

## DTC 350 - Food Systems Management I

Introduction to food systems management with emphasis on sanitation safety, equipment selection and operation, food purchasing, receiving and storage, and personnel management. __Credit Hours: 3 hrs _Prerequisite: DTC251 and department permission _Notes: Open only to dietetics majors.

## DTC 351 - Food Systems Management I Experience

Supervised practice experiences related to food systems management including food production and distribution, procurement and customer satisfaction. Students also become certified in food safety. __Credit Hours: 2 hrs _Prerequisite: DTC251, department permission and must be admitted to the Dietetics program _Corequisites: DTC350

## DTC 358 - Food and Culture

Global food supply issues can be understood
within the context of culture. This course explores factors influencing global food supply including: religion, culture, society, agricultural and livestock capabilities, environmental changes affecting food sources, malnutrition, overfeeding, fair trade agreements for growers/producers, food availability, industrialization, traditional health beliefs and intercultural communication. __Credit Hours: 3 hrs

## DTC 370 - Nutrition Therapy II

Development, implementation, and evaluation of nutrition care plans for individuals requiring medical nutrition therapy for liver disease, cancer, weight management, transplant, HIV-AIDS, metabolic stress including burns, wounds, sepsis, pediatric nutrition and total parenteral nutrition (TPN). __Credit Hours: 3 hrs _Prerequisite: DTC330 and department permission _Notes: Open only to dietetics majors.

## DTC 371 - Nutrition Therapy II Experience

Supervised clinical and ambulatory site based practice experiences in the clinical nutrition professional environment. __Credit Hours: 4 hrs _Prerequisite: DTC330, DTC331 and department permission _Corequisites: DTC370 _Notes: Open only to dietetics majors.

## DTC 372 - Nutrition of the Life Cycle

Emphasis on nutrient needs and influencing factors for each of the physiological stages of the life cycle. _Credit Hours: 3 hrs
_Prerequisite: DTC202, DTC203 or
DTC204; and department permission

## DTC 375-Complementary and Alternative Medicine

This course provides and 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. _Credit Hours: 3 hrs _Prerequisite: DTC202, DTC203 or
DTC204; and department permission

## DTC 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## DTC 378 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## DTC 379 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## DTC 422 - Nutrient Metabolism: Micronutrients

This course will explore the role of vitamins and minerals in basic biochemical pathways. The role of the micronutrients in these pathways will be integrated with nutritionally relevant physiological processes such as macronutrient metabolism, bone and collagen metabolism, erythropoiesis and gene expression. __Credit Hours: 3 hrs Prerequisite: DTC302; junior or senior level standing; department permission and be admitted to the Dietetics Major or Nutrition Minor

## DTC 430 - Nutrition Therapy III

Examination of federal, state, and local nutrition programs; conduct needs assessment in community and design appropriate education program. __Credit Hours: 3 hrs _Prerequisite: DTC202 and department permission _Notes: Open only to dietetics majors and nutrition minors.

## DTC 431 - Nutrition Therapy III Experience

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. __Credit Hours: 4 hrs _Prerequisite: department permission _Corequisites: DTC430 _Notes: Open only to dietetics majors.

## DTC 435-Seminar in Dietetics

Analysis and application of research topics and techniques as they apply to the field of dietetics. __Credit Hours: 2 hrs _Prerequisite: senior dietetics student and department permission

## DTC 450 - Food Systems Management II

Advanced topics in food systems management including leadership, development of employees, accountability, budgeting, financial management, information management and managing change. Students will also prepare a professional portfolio. __Credit Hours: 2 hrs _Prerequisite: DTC350, DTC351 and department permission

## DTC 451 - Food Systems Management II Experience

Supervised practice experiences that include documentation of competencies related to advanced food systems management. Students plan and omplement a theme meal, conduct employee training and a quality improvement project. __Credit Hours: 4 hrs _Prerequisite: DTC350, DTC351, department permission and must be admitted to the Dietetics program _Corequisites: DTC450 _Notes: Only open to dietetics majors.

## DTC 459 - Development of Entrepreneurial Dietitian

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. __Credit Hours: 3 hrs _Prerequisite: DTC108, DTC202, department permission and an intent to pursue Dietetics or acceptance to the Dietetics program

## DTC 470 - Nutrition Therapy IV

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. _Credit Hours: 2 hr _Prerequisite: DTC430 and department permission _Notes: Open only to dietetics majors.

## DTC 471 - Nutrition Therapy IV

## Experience

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. __Credit Hours: 4 hrs _Prerequisite: DTC431 and department permission _Corequisites: DTC470 _Notes: Open only to dietetics majors.

## DTC 477 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hrs _Prerequisite: department permission

## DTC 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## DTC 479 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## DTC 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr _Prerequisite: department permission

## DTC 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## DTC 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## ECE 214 - The Developing Child

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing _Notes: Concurrent registration in ECE215 required.

## ECE 215 - The Developing Professional

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. __Credit Hours: 2 hrs _Prerequisite: sophomore standing _Notes: Concurrent registration in ECE214 required. Includes three-hours-per-week practicum experience.

## ECE 302 - Methods of Integrating Curriculum and Resources in ECE

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. __Credit Hours: 3 hrs _Prerequisite: EDPS322 or EDPS325; concurrent registration in ECE303 and admission to the teacher education program

## ECE 303 - Implementing the Curriculum in ECE

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. _Credit Hours: 2 hrs _Prerequisite: EDPS322 or EDPS325; concurrent registration in ECE302 and admission to the teacher education program

## ECE 307 - Young Children in Peril: Educational Implications

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
Credit Hours: 3 hrs _Prerequisite: ECE214 and ECE215

## ECE 314 - Infants and Toddlers

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. Credit Hours: 3 hrs _Prerequisite: ECE214 and ECE215

## ECE 318 - Play and Creativity in ECE

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. __Credit Hours: 3 hrs _Prerequisite: ECE214, ECE215 and admission to the teacher education program

## ECE 341 - Assessment of the Young Child

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.
Credit Hours: 3 hrs _Prerequisite: ECE214, ECE215 and EDPS322 or EDPS325; admission to the teacher education program

## ECE 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ECON 100 - Introduction to Economic Problems and Policies

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. __Credit Hours: 3 hrs _Prerequisite: not open to students with ECON201/202 _Notes: Not recommended for business students.

## ECON 103 - Economics for Living

This course develops the tools and skills needed to survive and thrive in daily life. Focus is on understanding the economy and on how to evaluate costs and benefits related to everyday choices like student loans, the use of banks and credit, healthcare insurance options, and retirement plan participation.
__Credit Hours: 3 hrs

## ECON 103L - Economics for Living

This course develops the tools and skills needed to survive and thrive in daily life. Focus is on understanding the economy and on how to evaluate costs and benefits related to everyday choices like student loans, the use of banks and credit, healthcare insurance options, and retirement plan participation.
__Credit Hours: 3 hrs _Notes: This course
will count as credit for Learning Beyond the Classroom.

## ECON 108 - Introduction to the Global Economy

An introductory-level course accessible to student who have had no prior exposure to economics. It explains the basic concepts and principles of global economics in a nontechnical, non-mathematical manner. Students learn about the challenges and the opportunities that are presented bu the globalization of the world economy. __Credit Hours: 3 hrs

## ECON 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ECON 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs

## ECON 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ECON 200 - The American Economy

Survey of the principles of economics; the basic knowledge of the functioning of the present-day American economy __Credit Hours: 3 hrs _Notes: Not open to students with ECON201/202.

## ECON 201 - Principles of Macroeconomics

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. __Credit Hours: 3 hrs _Prerequisite: Level 3 Math Placement or MATH098 or above

## ECON 202 - Principles of Microeconomics

Second half of an introduction to basic principles of economics. Emphasizes microeconomic concepts of demand, supply and problems relating to prices and resource allocation. __Credit Hours: 3 hrs
_Prerequisite: Level 3 math placement or above, or MATH098 or above.

## ECON 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: one 100 - or 200 -level course in economics

## ECON 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: one 100- or 200-level course in economics

## ECON 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: one 100- or 200-level course in economics

## ECON 300 - Contemporary Economic Issues

Analysis of contemporary economic problems. Topics may change each semester as the interests and/or problems change. _Credit Hours: 3 hrs _Prerequisite: one 100-
, 200- or 300-level course in economics

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.
__Credit Hours: 3 hrs _Prerequisite:
ECON201/202 and either MATH105, MATH118, MATH1 19 or MATH120

## ECON 302 - Intermediate Microeconomic Analysis

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. __Credit Hours: 3 hrs _Prerequisite: ECON201, ECON202, and either MATH105, MATH118, MATH119 or MATH120

## ECON 303 - Consumer Economics

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. __Credit Hours: 3 hrs _Prerequisite: one 100-200 or 300-level course in Economics

## ECON 310 - Economic Statistics

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. __Credit Hours: 3 hrs _Prerequisite: MATH105, MATH118, MATH119 or MATH120

## ECON 320 - Labor Economics

Analysis of the theory of wage determination,
with attention to labor supply and labor
demand, human resource development, trade unions and labor market institutions. __Credit Hours: 3 hrs _Prerequisite: ECON201 and ECON202

## ECON 321 - Minority Workers in the Labor Market

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. __Credit Hours: 3 hrs _Prerequisite: one 100, 200- or 300-level course in economics

## ECON 325 - Collective Bargaining

Major problems in present-day collective bargaining including the negotiation of collective agreements, practical aspects and economic implications. __Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics

## ECON 327 - Economics of Poverty, Inequality and Discrimination

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. __Credit Hours: 3 hrs _Prerequisite: one 100, 200- or 300-level course in economics

## ECON 328 - Economics of Women

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. __Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics _Cross-Listed: This course is cross-listed with WGST328

## ECON 329 - Economics of Crime

The use of economic concepts and tools to analyze economic causes of crime and economic policies relevant to crime. __Credit

ECON 301 - Intermediate Macroeconomic
Analysis Analysis

Hours: 3 hrs _Prerequisite: ECON202 or equivalent

## ECON 332 - Urban Economics

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. __Credit Hours: 3 hrs
_Prerequisite: ECON202 or equivalent

## ECON 336-Economics of Environment and Natural Resources

The application of economic concepts and analysis to problems of environment and management of natural resources. __Credit Hours: 3 hrs _Prerequisite: ECON202 or equivalent

## ECON 337 - Energy Economics and Policies

Introduction to the economics of energy in the U.S. and world economies, including a critical analysis of the policies of the governments involved. _Credit Hours: 3 hrs _Prerequisite: ECON202 or equivalent

## ECON 340 - Money and Banking

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.
Credit Hours: 3 hrs _Prerequisite:
ECON201 and ECON202

## ECON 350 - Government Finance

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. __Credit Hours: 3 hrs _Prerequisite: ECON202 or equivalent

## ECON 361 - Corporation Finance

The structure, financial organization, income and policy decisions of corporations.
Credit Hours: 3 hrs _Prerequisite: one 100-
, 200- or 300-level course in economics

## ECON 370 - Comparative Economic Systems

Alternative approaches to organizing economic activity, emphasizing advantages and disadvantages as compared to the U.S. economic system. Illustrations are taken from non-capitalist economies such as Cuba and China.__Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics

## ECON 375 - Economic History of the United States

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.
__Credit Hours: 3 hrs _Prerequisite: one course in economics or department permission

## ECON 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: ECON201 and ECON202

## ECON 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: ECON201 and ECON202

## ECON 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:

3 hrs _Prerequisite: ECON201 and ECON202

## ECON 385-Economic Development

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. __Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics

## ECON 386 - Technology and Economic Growth

The nature of technology and its importance for contemporary economic growth. Includes technological change and its effects on society and the individual. __Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics

## ECON 387 - Cooperative Education in Economics

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.. __Credit Hours: 3 hrs _Prerequisite: ECON201, ECON202 and department permission _Notes: Admittance to program by application only. Graded on a credit/no-credit basis. Credits do not count towards the economics major or minor

## ECON 401 - Use of Quantitative Methods in Economics

Introduction to Contemporary National Databases and current econometric computer packages. Special attention is given on how to do empirical research: formulating hypotheses, estimating relationships, testing hypotheses, and dissemination of findings.
__Credit Hours: 3 hrs _Prerequisite:
ECON301 and ECON310 or equivalent
_Notes: Only open to juniors, seniors and MA in Trade Development students.

## ECON 402 - Computer Applications in Microeconomics

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. __Credit Hours: 3 hrs _Prerequisite: ECON302 and ECON310 or equivalent

## ECON 405-Economic Analysis for Business

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. __Credit Hours: 3 hrs _Prerequisite:
ECON201 and ECON202

## ECON 406-History of Economic Thought

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. __Credit Hours: 3 hrs _Prerequisite: ECON201 or ECON202

## ECON 406W - History of Economic Thought

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. __Click here for course description. Credits: 3 hrs

## ECON 407-Economic Analysis and Law

The application of economic analysis to the law, including property law, contract law, family law, torts, criminal law, constitutional law, antitrust and environmental law.
Credit Hours: 3 hrs _Prerequisite:
ECON201 and ECON202

## ECON 415 - Introduction to Econometrics

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. __Credit Hours: 3 hrs _Prerequisite: ECON201, ECON202, and either ECON 310, MATH360, MATH 370 or DS265

## ECON 436 - Health Economics

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. __Credit Hours: 3 hrs _Prerequisite: ECON202 or equivalent

## ECON 440 - Money, Credit, and Monetary Policy

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. __Credit Hours: 3 hrs _Prerequisite: ECON301 or ECON340

## ECON 445 - Economic Fluctuations and Forecasting

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. __Credit Hours: 3 hrs _Prerequisite: ECON201 and ECON202

## ECON 455 - Cost-Benefit Analysis

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. __Credit Hours: 3 hrs _Prerequisite: ECON201 and ECON202

## ECON 460 - Industrial Organization

Monopoly, competition, mergers, concentration and antitrust, and other public policies affecting private enterprise in the United States. __Credit Hours: 3 hrs
_Prerequisite: ECON201 and ECON202

## ECON 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours:
1 hr _Prerequisite: ECON201 and ECON202

## ECON 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: ECON201 and ECON202

## ECON 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: ECON201 and ECON202

## ECON 480 - International Economics

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. __Credit Hours: 3 hrs _Prerequisite: ECON201 and ECON202

## ECON 487-Cooperative Education in Economics

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. __Credit Hours: 3 hrs _Prerequisite: ECON387 _Notes: Admittance to program by application only. Graded on a credit/no-credit basis. Credits do not count towards the economics major or minor.

## ECON 491 - Research Seminar in Economics

Selected issues in economic methodology, research procedures, and techniques with the preparation of a major research paper and group analysis of its findings. __Credit Hours: 3 hrs _Prerequisite: ECON301 and ECON302

## ECON 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors. __Credit Hours: 1 hr

## ECON 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors. __Credit Hours: 2 hrs

## ECON 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. Restricted to economics majors and minors. __Credit Hours: 3 hrs

## ECON 585-Economis Growth and Development

Conditions, courses and consequences of growth and development; instruments of expansion and control, and important theories and models of growth. Economic growth in both the United States and underdeveloped countries. __Credit Hours: 3 hrs _Prerequisite: ECON301 and ECON302, or equivalent_Notes: This is a graduate course in and undergraduate program.

## EDLD 477 - Special Topics

Courses that can be offered on an
experimental basis for one semester for purposes of meeting special needs, interests and/or innovations. __Credit Hours: 1 hr _Prerequisite: department permission

## EDLD 478 - Special Topics

Courses that can be offered on an experimental basis for one semester for purposes of meeting special needs, interests and/or innovations. __Credit Hours: 2 hrs
_Prerequisite: department permission

## EDLD 479 - Special Topics

Courses that can be offered on an experimental basis for one semester for purposes of meeting special needs, interests and/or innovations. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDLD 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## EDLD 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## EDLD 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMD 101 - Use of Books and Libraries

Practical instruction in the use of the library's tools and materials. $\qquad$ Credit Hours: 2 hrs

## EDMD 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## EDMD 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDMD 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMD 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## EDMD 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDMD 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMD 345 - Media for the Classroom Teacher

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. __Credit Hours: 1 hr _Prerequisite:

## EDMD 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## EDMD 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDMD 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMD 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## EDMD 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDMD 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## EDMD 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## EDMD 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMT 330 - Instructional Applications of Media and Technology

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. __Credit Hours: 2 hrs _Prerequisite: CURR304, CURR305, BMMT200, PHED317, MUSC330, MUSC332 or TEDU350; admission to the teacher education program

## EDMT 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## EDMT 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDMT 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr _Prerequisite: department permission

## EDMT 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDPS 106 - Strategic Learning for Academic Success

Introduction to EMU services, diagnostic testing of learning styles and learning strategies for academic success. __Credit Hours: 3 hrs

## EDPS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## EDPS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## EDPS 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## EDMT 479-Special Topics

An exploration and study of topics not covered in other departmental offerings.

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 1 hrs _Prerequisite: department permission

## EDPS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDPS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDPS 322 - Human Development and Learning

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. __Credit Hours: 4 hrs

## EDPS 325 - Life Span Human Growth and

## Development

An exploration of the biological, cognitive, social and affective domains of human growth and development from the prenatal period until death; the relationship of growth and development to behavior through the life span. Credit Hours: 4 hrs

## EDPS 340 - Introduction to Assessment and Evaluation

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. Credit Hours: 3 hrs Prerequisite: EDPS322; admission to the teacher education program _Concurrent Prerequisite: CURR304 or CURR305

## EDPS 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## EDPS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDPS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## EDPS 402 - Learning in the Later Years

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. _Credit Hours: 3 hrs

## EDPS 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## EDPS 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## EDPS 479 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## EDPS 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr
_Prerequisite: department permission

## EDPS 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs Prerequisite: department permission

## EDPS 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## EDPS 621 - Statistical Applications in Educational Research

Emphasizes the role of statistics in hypothesis testing; statistical applications in visually presenting and summarizing data; computation of central tendency, variability, relationship and prediction indices; and interpretation of results. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## EDPS 651 - Inferential Statistics

Inferential statistics, both parametric and nonparametric, theory of hypothesis testing.
Credit Hours: 2 hrs _Prerequisite:
EDPS621 or equivalent_Notes: This is a graduate course in an undergraduate program.

## EDTC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## EDTC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## EDTC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## EDTC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## EDTC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## EDTC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## EDTC 300 - Introduction to Computer Applications in Education

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## EDTC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## EDTC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## EDTC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## EDTC 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr _Prerequisite: department permission

## EDTC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## EDTC 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

EDUC 490 - Student Teaching
Credit Hours: 8 hrs

## EDUC 491 - Student Teaching

Credit Hours: 10 hrs

## EDUC 492 - Student Teaching

Credit Hours: 12 hrs

## EDUC 493 - Student Teaching

For experienced, certified teachers. __Credit Hours: 2 hrs _Prerequisite: permission from College of Education Office of Academic Services

## EDUC 494 - Student Teaching

For experienced, certified teachers. __Credit Hours: 3 hrs _Prerequisite: permission from College of Education Office of Academic Services

## EDUC 495 - Student Teaching

Credit Hours: 4 hrs _Prerequisite: permission from College of Education Office of Academic Services

## EDUC 496 - Student Teaching

Credit Hours: 6 hrs

## EDUC 497 - Student Teaching

Credit Hours: 6 hrs _Prerequisite: credit toward certification in either EDUC496 or EDUC499

## EDUC 498 - Student Teaching

Credit Hours: 5 hrs _Prerequisite: credit toward certification in either EDUC496 or EDUC499

## EDUC 499 - Student Teaching

## ELEC 120 - Principles of Electrical Theory

This course presents an introduction to principles of electrical circuits and components using an applied approach which includes hands-on activity. __Credit Hours: 3 hrs

## ELEC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ELEC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## ELEC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ELEC 200 - Circuit Analysis I

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. __Credit Hours: 3 hrs _Prerequisite: MATH105/107

## ELEC 210 - Circuit Analysis II

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. __Credit Hours: 3 hrs _Prerequisite: ELEC200 _Corequisites: MATH112, MATH120 or Math Placement

## ELEC 214 - Digital Circuit Analysis I

The study of combinational and sequential circuits, logic families and design procedures. Simulation software is used for computerassisted learning. Lab exercises with typical circuits data collection and report writing. Credit Hours: 3 hrs _Prerequisite: ELEC200

## ELEC 215 - Computer-Aided Electronics

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. __Credit Hours: 3 hrs

## ELEC 218 - Motors and Controls

The study of DC and AC motor theory, operation and control. Power, energy, efficiency and applications of motors and motor control circuitry are featured. __Credit Hours: 3 hrs _Prerequisite: ELEC200

## ELEC 219 - Techniques of Energy Control

An introduction to the use of tools, materials, machines, equipment, supplies, and mechanisms utilized in power mechanics for energy control. Lecture and laboratory course. _Credit Hours: 3 hrs

## ELEC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ELEC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ELEC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## ELEC 300 - Analog Circuit Analysis I

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. Credit Hours: 3 hrs _Prerequisite: ELEC210 _Corequisites: MATH120

## ELEC 310 - Analog Circuit Analysis II

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. __Credit Hours: 3 hrs _Prerequisite: ELEC300 _Corequisites: MATH121

## ELEC 314 - Digital Circuit Analysis II

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. __Credit Hours: 3 hrs _Prerequisite: ELEC214

## ELEC 320 - Microcomputer Circuits

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. __Credit Hours: 3 hrs _Prerequisite: ELEC214/300 _Corequisites: COSC111

## ELEC 326 - Transform Circuit Analysis with Calculus

This course presents the fundamentals of transient circuit and system analysis with an emphasis on the Laplace transform and polezero approach for analyzing and interpreting problems. __Credit Hours: 3 hrs
_Prerequisite: ELEC120 and MATH120

## ELEC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## ELEC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ELEC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ELEC 387 - Cooperative Education in

 Electronic TechnologyAn 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. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Offered on a credit/no-credit basis.

## ELEC 415 - Communication Circuits

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.
Credit Hours: 3 hrs _Prerequisite:
ELEC310 _Corequisites: ELEC314

## ELEC 420 - Advanced Microprocessors

Further study of microprocessors and interfacing applications. Use of personal computers as the platform for data collection, instrumentation and control applications.
__Credit Hours: 3 hrs _Prerequisite:
ELEC310, ELEC314 and COSC211

## ELEC 450 - Senior Design Project

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. _Credit Hours: 3 hrs _Prerequisite: ELEC420 and ELEC415

## ELEC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ELEC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ELEC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ELEC 487 - Cooperative Education in Electronic Technology

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. __Credit Hours: 3 hrs _Prerequisite:
ELEC387 and department permission _Notes: Offered on a credit/no-credit basis.

## ELEC 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 1 hr _Notes: Offered on a credit/no-credit basis

## ELEC 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 2 hrs _Notes: Offered on a credit/no-credit basis.

## ELEC 496 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 3 hrs _Notes: Offered on a credit/no-credit basis.

## ELEC 497 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hrs _Prerequisite: department permission

## ELEC 498 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## ELEC 499 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## EM 340 - Engineering Ethics

Study of professional moral frameworks and
applications in the engineering profession. Real and theoretical cases in addition to codes of ethics from numerous professional engineering organizations will be examined.
Credit Hours: 3 hrs Prerequisite:
MFG203 and ET100

## ENGL 120 - Composition I: Writing the College Experience

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. __Credit Hours: 3 hrs

## ENGL 121 - Composition II: Researching the Public Experience

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, students engage in the process of writing researched essays that reflect conventions of standard written English and standard documentation styles. __Credit Hours: 3 hrs

## ENGL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ENGL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ENGL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours:

3 hrs _Prerequisite: department permission

## ENGL 225 - Writing in a Changing World

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.
_Credit Hours: 3 hrs _Prerequisite:
ENGL121 and sophomore or graduate standing.

## ENGL 277 - Special Topics

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.
_Credit Hours: 1 hr _Prerequisite:
ENGL121

## ENGL 278 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
ENGL121

## ENGL 279 - Special Topics

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.
Credit Hours: 3 hrs _Prerequisite:
ENGL121

## ENGL 300 - Writing about Literature

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 __Credit Hours: 3 hrs

## ENGL 300W - Writing about Literature

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. _Click here for course description. $\qquad$ Credits: 3 hrs $\qquad$

## ENGL 307 - Writing Process for Elementary Teachers

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.
__Credit Hours: 3 hrs _Prerequisite:
ENGL225 _Notes: 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

## ENGL 323 - Writing in the Professional World

Prepares Juniors and seniors majoring in education, the humanities and the social sciences to write in their profession. __Credit Hours: 3 hrs

## ENGL 324 - Principles of Technical Communication

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. __Credit Hours: 3 hrs _Prerequisite: ENGL121 and junior or graduate standing

## ENGL 326 - Research Writing

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. __Credit Hours: 3 hrs _Prerequisite: ENGL121 and sophomore or graduate standing

## ENGL 328 - Writing, Style and

## Technology

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. __Credit Hours: 3 hrs _Prerequisite: JRNL215, ENGL225, ENGL300, ENGL324 or ENGL326

## ENGL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## ENGL 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ENGL 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ENGL 387 - Cooperative Education in English

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. __Credit Hours: 3 hrs _Prerequisite: junior standing; admittance by application only

## ENGL 408 - Writing for Writing Teachers

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. __Credit Hours: 3 hrs
_Prerequisite: ENGL300, ENGL328 and
admission to the College of Education

## ENGL 408W - Writing for Writing Teachers

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description.

Credits: 3 hrs

## ENGL 409 - Teaching English in the Secondary Schools

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: ENGL408 _Prerequisite: 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

## ENGL 417 - Writing about Controversies

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. __Credit Hours: 3 hrs _Prerequisite: any two, 200-or-300 level, ENGL courses

## ENGL 424 - Technical Writing

An advanced workshop that prepares students to communicate, particularly to write, on the job. __Credit Hours: 3 hrs _Prerequisite: ENGL324

## ENGL 427-Technical Editing

Editing of technical material for publication.

Principles of style, format, graphics layout and publication management. __Credit Hours: 3 hrs _Prerequisite: ENGL324

## ENGL 428 - Writing Computer Documentation

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. __Credit Hours: 3 hrs _Prerequisite: COSC101 and ENGL324 or department permission

## ENGL 444 - Writing for the World Wide Web

An advanced writing course focused on composing documents for publication on the World Wide Web and other electronic spaces, such as interactive CD-ROMs.
Credit Hours: 3 hrs _Prerequisite:
ENGL121 and ENGL225, ENGL300 or any 300-level ENGL class

## ENGL 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite:
ENGL121 and one writing course at the 200level or above or department permission

## ENGL 478-Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
ENGL121 and one writing course at the 200-
level or above or department permission

## ENGL 479 - Special Topics

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.
_Credit Hours: 3 hrs _Prerequisite:
ENGL121 and one writing course at the 200level or above or department permission

## ENGL 484 - Seminar in Written Communications

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. __Credit Hours: 3 hrs _Prerequisite: ENGL424

## ENGL 487 - Cooperative Education in English

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. __Credit Hours: 3 hrs _Prerequisite: senior standing; admittance by application only

## ENGL 488 - Internship in Technical Writing

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. __Credit Hours: 1 hr _Prerequisite: junior or senior standing and recommendation of technical writing professor; ENGL324 and cumulative 3.0 GPA

## ENGL 489 - Internship in Technical

## Writing

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. __Credit Hours: 2 hrs _Prerequisite: junior or senior standing and recommendation of technical writing professor; ENGL324 and cumulative 3.0 GPA

## ENGL 490 - Internship in Technical Writing

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. __Credit Hours: 3 hrs _Prerequisite: junior or senior standing and recommendation of technical writing professor; ENGL324 and cumulative 3.0 GPA

## ENGL 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: nine hours in the appropriate major or minor

## ENGL 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: nine hours in the appropriate major or minor

## ENGL 524 - Advanced Technical Writing and Research

This course continues ENGL424 Technical Writing and is designed to prepare students to write professionally in business and industry. Students will research appropriate information and prepare oral and written reports, proposals, brochures and manuals.
__Credit Hours: 3 hrs _Prerequisite: graduate student in English _Notes: This is a graduate course in an undergraduate program.

ESLN 110 - Beginning ESL Grammar

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 112 - Beginning ESL Writing

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission _Corequisites: ESLN110

## ESLN 114 - Beginning ESL Reading

Basic Vocabulary is developed while comprehension skills of recognizing maid idea, supporting detail, exemplification and narration of materials in simplified English are studied. __Credit Hours: 3 hrs _Prerequisite: department permission or placement exam

## ESLN 116 - Beginning ESL Speaking and Listening

This course promotes and practices production and comprehension, conversational and survival levels of communication. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission or placement exam

## ESLN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission or placement exam

## ESLN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission or placement exam

## ESLN 210 - Intermediate ESL Grammar

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 212 - Intermediate ESL Writing

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. Students demonstrate control of grammar, word usage, coherence and unity. __Credit Hours: 3 hrs _Prerequisite: department permission _Corequisites: ESLN210

## ESLN 214 - Intermediate ESL Reading

Development of techniques to build vocabulary and reading skills. Materials emphasize informational reading. __Credit Hours: 3 hrs _Prerequisite: department permission or placement

## ESLN 216 - Intermediate ESL Speaking and Listening

Development of conversational skills, both speaking and listening. Delivery of short speeches and the development of listening for details. _Credit Hours: 3 hrs _Prerequisite: department permission or placement

## ESLN 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## ESLN 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ESLN 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 310 - Advanced ESL Grammar

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 312 - Advanced ESL Writing

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Corequisites: ESLN310

## ESLN 314 - Advanced ESL Reading

Practice in comprehending and analyzing unsimplified texts of greater length and linguistic complexity in a variety of fields.

Credit Hours: 3 hrs _Prerequisite: ESLN214, department permission or placement

## ESLN 316 - Advanced ESL Speaking and Listening

Development of conversational, speaking and listening skills. Production and comprehension of short discourses on personal and nonpersonal topics. __Credit Hours: 3 hrs _Prerequisite: ESLN216, department permission or placement

## ESLN 318 - Advanced ESL Laboratory

Individual and/or group lab sessions __Credit Hours: 1 hr _Prerequisite: department permission or placement

## ESLN 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ESLN 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ESLN 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 410 - Academic ESL Grammar

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.

Credit Hours: 3 hrs _Prerequisite: department permission

## ESLN 412 - Academic ESL Writing

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Corequisites: ESLN410

## ESLN 414 - Academic ESL Reading

Reading in specialized fields at professional levels. Practice in outlining, summarizing and synthesizing ideas from different sources. __Credit Hours: 3 hrs _Prerequisite: ESLN314, department permission or placement

## ESLN 416 - Academic ESL Speaking and

## Listening

Strategies for and practice in comprehending lectures, taking notes and effectively participating in informal and formal classroom speaking activities._Credit Hours: 3 hrs _Prerequisite: ESLN316, department permission or placement

## ESLN 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite:
department permission

## ESLN 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite:
department permission

## ESLN 479 - Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## ESLN 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hrs _Prerequisite: department permission

## ESLN 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## ESLN 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESSC 107 - Introduction to Environmental Science

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.. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with BIOL107. _Notes: Does not count toward the Biology major or minor

## ESSC 108 - Earth Science for Nonscience Majors

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 __Credit Hours: 3 hrs _Corequisites: ESSC109._Notes: Does not count towards major or minor.

## ESSC 109 - Earth Science Laboratory for Non-Science Majors

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. __Credit Hours: 1 hr _Corequisites: ESSC108. _Notes: Does not count towards major or minor.

## ESSC 110 - The Dynamic Earth System

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. __Credit Hours: 4 hrs

## ESSC 111 - The Earth System Through Time

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. __Credit Hours: 4 hrs _Prerequisite: ESSC110

## ESSC 114 - National Parks and Monuments

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. __Credit Hours: 2 hrs _Lecture/Lab Hours: Lectures: three hours per week. Laboratory: one two-hour period per week

## ESSC 120 - Dinosaurs, Mammoths and Trilobites: An Introduction to Paleontology

An introduction to Paleontology designed for students who are not majoring or minoring in science. Includes exploration of the scientific method in the context of Paleontology, with hands-on lab-based activities, plus overviews of major groups of life, key ecosystems, and mass extinction events during the history of
the bioshpere. __Credit Hours: 3 hrs
_Lecture/Lab Hours: Lecture: two hours per
week; Lab: one two-hour period per week.

## ESSC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ESSC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## ESSC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ESSC 202 - Earth Science for Elementary Teachers

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, processoriented approaches widely used in elementary classrooms. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: one two-hour period per week. _Notes: Equivalent to ESSC108.

## ESSC 208-Natural Environmental Hazards

Analysis of devastating earthquakes, volcanic eruptions, floods, violent storms, freezes and other environmental catastrophes, emphasizing their causes and human adjustments to these events. __Credit Hours: 3 hrs _Prerequisite: ESSC110 or ESSC202

## ESSC 212 - Weather, Climate and the Earth System

An examination of earth-sun relationships, the nature of atmospheric processes, weather, and climate. __Credit Hours: 3 hrs
_Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week.
_Prerequisite: ESSC110

## ESSC 215 - Aviation Weather

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. __Credit Hours: 3 hrs _Prerequisite: course available to aviation flight technology or aviation management majors/minors only. _CrossListed: This course is cross-listed with AVT215

## ESSC 227 - Topographic Maps

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. __Credit Hours: 2 hrs
_Prerequisite: ESSC110 or ESSC202

## ESSC 228 - Mineralogy

A study of the crystallography, crystal chemistry and identification of the most important rock forming and economic minerals of the crust of the earth. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: one twohour period per week_Prerequisite: ESSC110 and CHEM121/122

## ESSC 229 - Rocks and Minerals

The identification and classification of rocks and minerals with special emphasis on characteristics used in the field. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: one two-
hour period per week. _Prerequisite: ESSC110

## ESSC 250 - Introduction to Coastal Processes

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. __Credit Hours: 3 hrs _Prerequisite: ESSC110 or ESSC202

## ESSC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ESSC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours: 2 hr

## ESSC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ESSC 300 - Introduction to Hydrology

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. __Credit Hours: 3 hrs _Prerequisite: ESSC110

## ESSC 303 - Field Geography

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. __Credit Hours: 3 hrs _Prerequisite: ESSC110

## ESSC 307-Essentials of Oceanography for Elementary Teachers

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. __Credit Hours: 3 hrs _Prerequisite: ESSC202

## ESSC 311 - Weather and Climate for Elementary Teachers

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. __Credit Hours: 3 hrs _Prerequisite: ESSC202 or department permission

## ESSC 312 - Plate Tectonics for Elementary Teachers

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. __Credit Hours: 3 hrs _Prerequisite: ESSC202

## ESSC 315 - Water and the Environment for Elementary Teachers

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. __Credit Hours: 3 hrs _Prerequisite: ESSC202

## ESSC 320 - Oceanography

A study of the world's oceans, including coasts, waves, currents, tides, sediments, marine geology, properties of seawater, the energy balance, oceonographic research techniques and marine resources, stressing physical oceanography. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week; Lab: one two-hour period per week. _Prerequisite: ESSC111

## ESSC 324 - Weather

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week.
_Prerequisite: ESSC212 _Cross-Listed: This course is cross-listed ESSC562

## ESSC 325-Geomorphology

A detailed study of surface features and the degradational, aggradational and structural processes by which they are formed. Worldwide examples are used extensively. _Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: one three-hour period per week.
_Prerequisite: ESSC111

## ESSC 326 - Structural Geology

Introduction to the terminology, geometry, kinematics and mechanics of rock deformation. Laboratory emphasizes geometric techniques of structural analysis. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: one two-hour period per week. _Prerequisite: ESSC111 and MATH107, MATH112,

MATH120 or MATH122

## ESSC 327 - Soil Science

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. __Credit Hours: 3 hrs _Prerequisite: ESSC111

## ESSC 329 - Igneous and Metamorphic Petrology

A study of the texture, chemistry, classification, origin and evolution of igneous and metamorphic rocks. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: one two-hour period per week. _Prerequisite: ESSC111 and ESSC228

## ESSC 330 - Sedimentology and Stratigraphy

The properties, description and classification of sedimentary rocks; processes and environments of sediment deposition; principles and techniques of stratigraphy. Field trips and reports required. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: four hours per week. _Prerequisite: ESSC111 and ESSC228

## ESSC 331 - Paleontology

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week; laboratory: one two-hour period per week. _Prerequisite: ESSC120, ESSC111 or BIOL120

## ESSC 347 - Methods for Teaching Secondary Earth Science

The techniques of teaching laboratorycentered 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. __Credit Hours: 3 hrs _Prerequisite: ESSC320 and ESSC324; Admission to the College of Education and the teacher education program; Students with an Earth Science Secondary Teaching Major or Minor or Secondary Integrated Science Minor only _Notes: Not open to students on academic probation.

## ESSC 350 - Biogeography

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. __Credit Hours: 3 hrs _Prerequisite: ESSC110

## ESSC 355 - Field Geology I

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. __Credit Hours: 2 hrs _Prerequisite: ESSC326, ESSC229 and ESSC330

## ESSC 356 - Field Geology II

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. __Credit Hours: 3 hrs _Prerequisite: ESSC326, ESSC229 and ESSC330

## ESSC 370 - Glacial Geology

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: one three-hour period per week.
_Prerequisite: ESSC111

## ESSC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ESSC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## ESSC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ESSC 387 - Cooperative Education in Geoscience

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Graded on a credit/nocredit basis

## ESSC 406 - The Nature of Science

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 __Credit Hours: 1 hr _Prerequisite: ESSC110 and ESSC111.
_Notes: Department permission required for non-earth science majors or minors.

## Dinosaurs

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. __Credit Hours: 3 hrs _Prerequisite: ESSC108, ESSC110 or ESSC202

## ESSC 424 - Climatology

An analysis of the world's climate types, including characteristics, classification, controls and their effects on world soils and natural vegetation. __Credit Hours: 3 hrs _Prerequisite: ESSC324

## ESSC 425 - Severe and Unusual Weather

Analysis of cyclones, blizzards, thunderstorms, tornadoes, hurricanes and other catastrophic weather phenomena. Their environmental impact and prediction.
__Credit Hours: 3 hrs _Prerequisite:
ESSC324

## ESSC 428-Optical Mineralogy

A study of the optical properties of minerals and the use of the petrographic microscope to identify common minerals in thin section. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week. _Prerequisite: ESSC228

## ESSC 430 - Petroleum Geology

A study of the origin, migration and accumulation of petroleum; reservoir analysis, exploration and development techniques. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: two hours per week. Laboratory: two hours per week.
_Prerequisite: ESSC326 and ESSC330

## ESSC 439 - Economic Geology

A study of the geochemical behavior of metallic elements; the origin, processes,
controls and classification of ore deposits.
_Credit Hours: 3 hrs _Lecture/Lab Hours:
Lecture: two hours per week. Laboratory: two hours per week. _Prerequisite: ESSC329

## ESSC 448 - Hydrogeology

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. __Credit Hours: 3 hrs _Prerequisite: ESSC200 and either MATH105 or MATH107 or MATH112 or MATH120 or MATH122

## ESSC 450 - Lake and Coastal Management

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. __Credit Hours: 3 hrs _Prerequisite: ESSC250 or ESSC350

## ESSC 459 - Aquifer Analysis

Study of the analysis of aquifer parameters and groundwater flow using analytical, numerical and statistical computer methods.
Credit Hours: 3 hrs _Prerequisite: ESSC448

## ESSC 460 - Contaminant Hydrology

Study of hydrochemistry, pollution pathways and transport of contaminants. __Credit Hours: 3 hrs _Prerequisite: CHEM121/122 and ESSC448

## ESSC 470 - Quantitative Methods in Geography and Geology

Introduction to current techniques and methods applicable to geographic and geologic problems. An applied course emphasizing statistical analyses and computer applications. _Credit Hours: 3 hrs _Prerequisite: ESSC110 and MATH104, MATH105, MATH107, MATH112, MATH120 or MATH122.

## ESSC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## ESSC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## ESSC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## ESSC 485 - Introduction to Remote Sensing

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. __Credit Hours: 3 hrs

## ESSC 487 - Cooperative Education in Geoscience

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESSC 488 - Internship

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 __Credit Hours: 4 hrs _Prerequisite: department permission _Notes: May be taken only once for credit.

## ESSC 489 - Internship

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. __Credit Hours: 5 hrs _Prerequisite: department permission _Notes: May be taken only once for credit.

## ESSC 490 - Internship

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. __Credit Hours: 6 hrs _Prerequisite: department permission _Notes: May be taken only once for credit.

## ESSC 495-Environmental Assessment and Planning

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.
Credit Hours: 3 hrs _Prerequisite:
ESSC110 or GPLN215. _Cross-Listed: This course is cross-listed with GPLN495

## ESSC 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## ESSC 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## ESSC 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## ESSC 590-Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 1 hr _Prerequisite: department permission _Notes: This is a Graduate course in an Undergraduate program.

## ESSC 591 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 2 hrs _Prerequisite: department permission _Notes: This is a Graduate course in an Undergraduate program.

## ESSC 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: This is a Graduate course in an Undergraduate
program.

## ET 100 - Introduction to Engineering Technology

Introduction to the Engineering Technology profession by demonstrating and applying problem solving concepts from science and technology courses. Development of openended 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. __Credit Hours: 3 hrs _Prerequisite: freshmen standing

## ET 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ET 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## ET 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ET 497 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hr _Prerequisite: department permission

## ET 498 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## ET 499 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## FETE 201 - Field Experience I

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. __Credit Hours: 1 hr _Concurrent Prerequisite: EDPS322

## FETE 301 - Field Experience II:Elementary

Field placement in an elementary school. Focus is on reflective teaching and assessment decisions. __Credit Hours: 1 hr _Prerequisite: EDPS322; admission to the teacher education program _Concurrent Prerequisite: CURR304

## FETE 302 - Field Experience II: Secondary

Field placement in a middle level or high school. Focus is on reflective teaching and assessment decisions. __Credit Hours: 1 hr _Prerequisite: EDPS322; admission to the teacher education program _Concurrent Prerequisite: CURR305

## FETE 401 - Field Experience III:Elementary

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. __Credit Hours: 1 hr _Prerequisite: CURR304; admission to the teacher education program _Concurrent Prerequisite: RDNG310

## FETE 402 - Field Experience III: Secondary

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. __Credit Hours: 1 hr _Prerequisite: CURR305; admission to the teacher education program _Concurrent Prerequisite: RDNG311

## FIN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FIN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FIN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FIN 277 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## FIN 278 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## FIN 279 - Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## FIN 287 - Cooperative Education in Finance

Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. __Credit Hours: 3 hrs _Prerequisite: ACC240 and department permission _Notes: Use on a finance major or minor not permitted. Offered on a credit/nocredit basis Admittance by application only

## FIN 350 - Principles of Finance

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.
__Credit Hours: 3 hrs _Prerequisite: ACC240

## FIN 352 - Financial Management for Entrepreneurs

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. __Credit Hours: 3 hrs _Prerequisite: FIN350 or equivalent

## FIN 354 - Investments

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.__Credit Hours: 3 hrs _Prerequisite: FIN350

## FIN 357 - Financial Markets and Institutions

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.

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\text { __Credit Hours: } 3 \text { hrs _Prerequisite: FIN350 }
$$

## FIN 359 - Intermediate Financial Theory

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.
__Credit Hours: 3 hrs _Prerequisite: a grade of C or better in FIN350 _Corequisites: FIN360

## FIN 370 - International Business Finance

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. Credit Hours: 3 hrs _Prerequisite: FIN350 or equivalent

## FIN 377 - Special Topics

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 _Credit Hours: 1 hr _Prerequisite: department permission

## FIN 378 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## FIN 379 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## FIN 387 - Cooperative Education in Finance

Four months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. _Credit Hours: 3 hrs _Prerequisite: FIN287 and department permission _Notes: Use on a finance major or minor not permitted. Admittance by application only.

## FIN 450 - Problems in Financial Management

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. Credit Hours: 3 hrs Prerequisite: FIN359

## FIN 450W - Problems in Financial Management

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: FIN359

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## FIN 451 - Introduction to Speculative

## Markets

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. __Credit Hours: 3 hrs _Prerequisite: FIN350

## FIN 453 - Commercial Banking

Practices, policies, and problems of commercial bank management and operation, capital adequacy, loan and investment policy, liquidity and profit maximization. __Credit Hours: 3 hrs _Prerequisite: FIN350

## FIN 454 - Mortgage Banking

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. __Credit Hours: 3 hrs _Prerequisite: FIN350 or equivalent

## FIN 477 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## FIN 478 - Special Topics

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.
Credit Hours: 2 hrs _Prerequisite:
department permission

## FIN 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## FIN 487 - Cooperative Education in

 FinanceFour months of full-time employment at a business or public organization in a finance position chosen for imparting practical experience in finance. __Credit Hours: 3 hrs _Prerequisite: FIN387 and department permission _Notes: Use on a finance major or minor not permitted. Admittance by application only. Offered on a credit/nocredit basis

## FIN 489 - Internship

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Admittance by application only.

## FIN 497 - Independent Study

Directed study of a problem or group of problems in finance. __Credit Hours: 1 hr _Prerequisite: department permission

## FIN 498 - Independent Study

Directed study of a problem or group of problems in finance. __Credit Hours: 2 hrs _Prerequisite: department permission

## FIN 499 - Independent Study

Directed study of a problem or group of problems in finance. __Credit Hours: 3 hrs _Prerequisite: department permission

## FIN 502 - Financial Principles

Provides beginning graduate students a solid foundation in the general principles of finance. Provides an appreciation of how businesses and households allocate scarce resources over time and when outcomes are uncertain. The primary focus is corporate finance; the course will also introduce financial markets and institutions, and investments. _Credit Hours: 3 hrs _Prerequisite: ACC501; ECON500 is recommended

## FLAN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FLAN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FLAN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FLAN 215 - The Cultures of MexicanAmericans and Cubans in the United States

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. __Credit Hours: 3 hrs

## FLAN 277 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## FLAN 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## FLAN 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## FLAN 377 - Special Topics

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. __Credit Hours: 1 hrs _Prerequisite: department permission

## FLAN 378 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## FLAN 379 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## FLAN 387 - Cooperative Education in Foreign Language

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. __Credit Hours: 3 hrs _Prerequisite: junior standing; admission to the program by application only _Notes: Offered on a credit/no-credit basis.

## FLAN 388 - Internship

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 Hours: 1 hr _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## FLAN 411 - Theory and Methods of Modern Language Teaching

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. __Credit Hours: 3 hrs _Prerequisite: junior standing, FRNH343/SPNH343/GERN343 or department permission; admission to the teacher education program

## FLAN 412 - Methods of Teaching Modern Languages in the Elementary Grades

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. __Credit Hours: 3 hrs _Prerequisite: senior
standing, FLAN411, department permission

## FLAN 421 - History and Theory of Bilingual Education

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. __Credit Hours: 3 hrs

## FLAN 422 - Teaching Hispanic Culture and Language

The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. Techniques and materials for teaching other subjectmatter areas in Spanish. A minimum of 24 hours of field experience in a bilingual classroom required. Not open to students on academic probation. __Credit Hours: 3 hrs _Prerequisite: admission to the teacher education program

## FLAN 477 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## FLAN 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## FLAN 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## FLAN 487-Cooperative Education in Foreign Language

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 __Credit Hours: 3 hrs _Prerequisite: FLAN387; admission to the program by application only _Notes: Offered on a credit/no-credit basis.

## FLAN 488 - Internship in Language and International Trade

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 Hours: 2 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## FLAN 489 - Internship in Language and International Trade

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 Hours: 3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## FLAN 490 - Internship in Language and International Trade

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 Hours: 3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## FLAN 497 - Independent Study

Advanced study on an individual basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## FLAN 498 - Independent Study

Advanced study on an individual basis in areas not covered in formal course work.

Credit Hours: 2 hrs _Prerequisite: department permission

## FLAN 499 - Independent Study

Advanced study on an individual basis in areas not covered in formal course work __Credit Hours: 3 hrs _Prerequisite:
department permission

## FMGT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FMGT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FMGT 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FMGT 202 - Introduction to Facility Management

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. __Credit Hours: 3 hrs

## FMGT 230 - Facility Operations and Maintenance

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. __Credit Hours: 3 hrs

## FMGT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FMGT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FMGT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FMGT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FMGT 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FMGT 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FMGT 387-Cooperative Education in Facility Management

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. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Credit applicable to the major in facility management only. Offered on a credit/nocredit basis.

## FMGT 416 - Managing Utilities, Lighting Systems and Code Compliance

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.__Credit Hours: 3 hrs _Prerequisite: CADM105 and FMGT202

## FMGT 417-Computer-Aided Facility Management

This course teaches the student how to use software that is dedicated to managing facilities. __Credit Hours: 3 hrs _Prerequisite: CADM105 and FMGT230

## FMGT 418 - Building Automation Systems

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. __Credit Hours: 3 hrs _Prerequisite: CADM105 and FMGT202

## FMGT 424 - Industrial Plant Facilities and Planning

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. __Credit Hours: 3 hrs

## FMGT 432 - Senior Seminar in Facility Management

This course is a capstone experience that considers and integrates special problems in facility management. __Credit Hours: 3 hrs _Prerequisite: FMGT202, FMGT230, senior standing, completed or concurrent co-op

## FMGT 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## FMGT 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## FMGT 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FMGT 487-Cooperative Education in Facility Management

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..
__Credit Hours: 3 hrs _Prerequisite:
FMGT387 and department permission.
_Notes: Graded on a credit/no-credit basis

## FMGT 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client
company. __Credit Hours: 1 hr _Notes: Offered on a credit/no-credit basis.

## FMGT 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 2 hrs _Notes: Offered on a credit/no-credit basis

## FMGT 496 - Industry-Based Special

## Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 3 hrs _Notes: Offered on a credit/no-credit basis

## FMGT 497 - Directed Study in Facility Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hr _Prerequisite: department permission

## FMGT 498 - Directed Study in Facility Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## FMGT 499 - Directed Study in Facility Management Techniques

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## FRNH 121 - Beginning French

Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments. __Credit Hours: 5 hrs

## FRNH 122 - Beginning French

Introductory course including practice in listening, speaking, reading and writing in French. Sessions in the language laboratory are part of regular assignments. __Credit Hours: 5 hrs _Prerequisite: FRNH121 or by placement exam

## FRNH 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## FRNH 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FRNH 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FRNH 221 - Intermediate French

## (Reading)

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. __Credit Hours: 3 hrs
_Prerequisite: FRNH122 or by placement exam

## FRNH 222 - Intermediate French (Reading)

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. __Credit Hours: 3 hrs _Prerequisite: FRNH221 or by placement exam

## FRNH 233 - Intermediate French Conversation, Composition and Grammar

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. __Credit Hours: 3 hrs _Prerequisite: FRNH122 or by placement exam

## FRNH 234 - Intermediate French Conversation, Composition and Grammar

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. __Credit Hours: 3 hrs _Prerequisite: FRNH233 or placement exam

## FRNH 261 - Introduction to Professional Language Study

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. __Credit Hours: 3 hrs _Prerequisite: FRNH121, FRNH122, FRNH221 FRNH222, FRNH233, FRNH234

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## FRNH 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## FRNH 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## FRNH 341 - Survey of French Literature

This survey course covers major authors and literary movements from the beginning of French literature up to the 19th century. In French. __Credit Hours: 3 hrs _Prerequisite: FRNH222 and FRNH234

## FRNH 342 - Survey of French Literature

This survey course covers major authors and literary movements of the 19th and 20th centuries In French. __Credit Hours: 3 hrs _Prerequisite: FRNH222 and FRNH234

## FRNH 343 - French Composition

Writing for a variety of purposes and a systematic grammar review. Frequent written assignments. In French. __Credit Hours: 3 hrs _Prerequisite: FRNH234 or department permission

## FRNH 344 - French Conversation

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. In French. _Credit

Hours: 3 hrs _Prerequisite: FRNH234 or department permission

## FRNH 361 - French for International Trade

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. __Credit Hours: 3 hrs _Prerequisite: FRNH343 or department permission

## FRNH 377 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## FRNH 378 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## FRNH 379 - Special Topics

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. __Credit Hours: 3 hrs
_Prerequisite: department permission

## FRNH 388 - Internship

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. __Credit Hours: 1 hr _Prerequisite: department permission

## FRNH 443 - Advanced French Grammar and Composition

Extensive written practice for a variety of specific purposes integrating advanced grammatical structures. Frequent written assignments In French. __Credit Hours: 3 hrs _Prerequisite: FRNH343

## FRNH 443W - Advanced Grammar and Composition

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement. __Credit Hours: 3 hrs _Prerequisite: FRNH343

## FRNH 444 - Advanced French <br> Conversation

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. In French. __Credit Hours: 3 hrs _Prerequisite: FRNH343 and FRNH344 or department permission

## FRNH 445 - French Phonetics

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.
__Credit Hours: 3 hrs _Prerequisite:
FRNH344

## FRNH 446 - Business French I

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. __Credit Hours: 3 hrs _Prerequisite: FRNH361 or department permission

## FRNH 447 - Business French II

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.
_Credit Hours: 3 hrs _Prerequisite:
FRNH446 or department permission

## FRNH 450 - French Civilization in Film

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. __Credit Hours: 3 hrs _Prerequisite: FRNH343/344

## FRNH 451 - Readings in French

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. __Credit Hours: 1 hr _Prerequisite: FRNH341, FRNH342 or department permission

## FRNH 452 - Readings in French

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. __Credit Hours: 2 hrs _Prerequisite: FRNH341, FRNH342 or department permission

FRNH 466 - French Speaking Cultures of the World

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.
__Credit Hours: 3 hrs _Prerequisite:
FRNH343 and FRNH344

## Civilization

A study of French history and civilization. All major pre-World War I historical periods and cultural movements will be covered. In French. __Credit Hours: 3 hrs _Prerequisite: FRNH343 or department permission

## FRNH 476-20th-Century French

## Civilization

A study of the main events of the 20th century. The major historical and social movements will be covered. In French.
__Credit Hours: 3 hrs _Prerequisite:
FRNH343; open to juniors and seniors

## FRNH 477 - Special Topics

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.
_Credit Hours: 1 hr _Prerequisite: department permission

## FRNH 478 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## FRNH 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## FRNH 488 - Internship

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. __Credit Hours: 2 hrs
_Prerequisite: department permission

## FRNH 489 - Internship

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 Hours: 3 hrs _Prerequisite:
department permission _Notes: In French.

## FRNH 490 - Intensive French Abroad

An intensive linguistic and cultural immersion experience of at least six weeks' duration offered in an approved Frenchspeaking environment. Instruction at many different levels..In French. __Credit Hours: 6 hrs

## FRNH 492 - Capstone Seminar in French

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. __Credit Hours: 3 hrs _Prerequisite: FRNH341, FRNH444 and FRNH342 _Concurrent Prerequisite: FRNH443

## FRNH 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## FRNH 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## FRNH 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

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. __Credit Hours: 3 hrs

## GEOG 107 - Introduction to Geography

A survey of the major concepts and subfields in modern geography. Physical, cultural, economic, political and social geography are among the major areas explored. __Credit Hours: 3 hrs

## GEOG 110 - World Regions

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. __Credit Hours: 3 hrs

## GEOG 111 - Regions and Resources

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. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 112 - Introduction to Travel and

 TourismAn 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. __Credit Hours: 3 hrs

GEOG 113 - Foundations of Guest Service
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. __Credit Hours: 3 hrs

## GEOG 115-Observing the Human Landscape

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.
__Credit Hours: 2 hrs

## GEOG 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GEOG 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GEOG 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GEOG 212 - Geography of Travel and

 TourismA 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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: GEOG100 or GEOG112

## GEOG 235 - Economic Geography

Systematic treatment of economic activities in select world locations. Areal factors included in the evaluation, production and distribution of goods and services. __Credit Hours: 3 hrs

## GEOG 276 - Principles of Geographic Information Systems

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 georeferencing 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.).
__Credit Hours: 3 hrs _Prerequisite:
GEOG107 or GEOG110, ESSC108 or
ESSC110 _Cross-Listed: This course is cross-listed with GPLN276

## GEOG 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GEOG 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GEOG 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

Detailed analysis of the natural setting, population and settlement characteristics, industry, recreation and agriculture in the state. __Credit Hours: 2 hrs _Prerequisite: GEOG110

## GEOG 314 - Geography of Russia and Neighboring States

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. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 315-Travel and Tourism: The European Scene

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. __Credit Hours: 3 hrs
_Prerequisite: GEOG112 and GEOG212

## GEOG 316 - History and Geography of Modern Europe

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. __Credit Hours: 3 hrs _Prerequisite: GEOG110 and one of HIST101/102/103

## GEOG 317 - History and Geography of Spanish America

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. __Credit Hours: 3 hrs _Prerequisite: GEOG110 and
one of HIST101/102/103 _Concurrent Prerequisite: HIST317

## GEOG 318 - Geography of Asia

A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions.

## __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 319-Geography of Europe

Systematic treatment of the natural setting, cultural patterns, economic activities and developmental problems of the continent; selected significant regions analyzed in detail. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 320 - Geography of the United

 States and CanadaA regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 321-Geography of Latin America

A regional treatment of natural setting, distribution of the people, important occupations and problems of future development in each of several regions. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 322-Geography of Africa

A human ecological treatment of the African continent, involving resource identification and use as well as the varied nature of evolving human landscapes. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 332 - Urban Geography

A study of geographic principles related to distribution, function, structure and regional setting of urban centers. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 333 - Settlement Geography

Cultural, functional and ecological factors underlying human settlement patterns
Credit Hours: 3 hrs _Prerequisite:
GEOG110 or GEOG115

## GEOG 336-Tourism and Socioeconomic Development

Socioeconomic impacts of tourism; national and international development strategies.
__Credit Hours: 3 hrs _Prerequisite:
GEOG112 or GEOG212

## GEOG 345-Geography of Resorts

Historical and systematic study of resorting and the resort as a functionally specialized settlement type; major resort areas of the world. _Credit Hours: 2 hrs _Prerequisite: GEOG110/212

## GEOG 348 - Teaching Social Studies in Elementary Schools

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. __Credit Hours: 3 hrs _Prerequisite: one course in geography _Notes: Not open to students on academic probation.

## GEOG 360 - Cultural Geography

Human landscape patterns; emphasis upon the processes concerned with their origins, locations and persistence. __Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 361 - Geography of Population

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. Credit Hours: 3 hrs _Prerequisite: GEOG110

## GEOG 376 - Geographic Information Systems Analysis

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. __Credit Hours: 3 hrs _Prerequisite: GEOG276/GPLN276

## GEOG 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## GEOG 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GEOG 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GEOG 387 - Cooperative Education in Geography

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. __Credit Hours: 3 hrs _Prerequisite: completion of sophomore year, geography major; admittance by application only _Notes: Graded on a credit/no-credit basis.

## GEOG 405 - Aerial Photo Interpretation

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 __Credit Hours: 3 hrs _Prerequisite: GEOG276/GPLN276 _Notes: Not open to students with credit in ESSC575.

## GEOG 441 - Transportation Geography and Planning

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. __Credit Hours: 3 hrs _Prerequisite: GEOG235, GEOG212 or GPLN215

## GEOG 445-Cultural Tourism Resources

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. __Credit Hours: 3 hrs _Prerequisite:
GEOG212 or GEOG336

## GEOG 445-Cultural Tourism Resources

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. __Credit Hours: 3 hrs _Prerequisite:
GEOG212 or GEOG336

GEOG 446 - Heritage Interpretation and Tourism

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. __Credit Hours: 3 hrs _Prerequisite: GEOG445

## GEOG 476 - Advanced Geographic Information Systems

Advanced concepts and techniques in vector and raster-based GIS. Topics include surface modeling, local, neighborhood and zonal map algebraic operators, geostatistical analysis using raster structures and modeling spatiotemporal processes, multicriteria decision analysis, point pattern analysis, spatial autocorrelation, regression models and network analysis. __Credit Hours: 3 hrs _Prerequisite: GEOG376

## GEOG 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GEOG 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GEOG 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## Systems Projects

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. __Credit Hours: 1-3 hrs _Prerequisite: GEOG376

## GEOG 487-Cooperative Education in Geography

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. _Credit Hours: 3 hrs _Prerequisite: GEOG387; completion of junior year, geography major; admittance by application only _Notes: Graded on a credit/no-credit basis.

## GEOG 488 - Internship

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. __Credit Hours: 4 hrs _Prerequisite: department permission and placement _Notes: May be taken only once for credit.

## GEOG 489 - Internship

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 __Credit Hours: 5 hrs _Prerequisite: department permission and placement _Notes: May be taken only once for credit.

## GEOG 490 - Internship

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 __Credit Hours: 6 hrs _Prerequisite: department permission and placement_Notes: May be taken only once for credit.

## GEOG 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## GEOG 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GEOG 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## GEOG 513 - South American Lands

A regional study of the countries of South America; resources, people and national cultures are stressed. __Credit Hours: 2 hrs _Prerequisite: GEOG321 or equivalent _Notes: This is a graduate course in an undergraduate program.

## GEOG 518 - Problems of Sub-Saharan Africa

Individual research in selected problems in the geography of Sub-Saharan Africa. Credit Hours: 2 hrs _Prerequisite: GEOG 322 or equivalent

## GERN 121 - Beginning German

Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercises and reading. __Credit Hours: 5 hrs

## GERN 122 - Beginning German

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. __Credit Hours: 5 hrs _Prerequisite: GERN121 or by placement examination

## GERN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GERN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERN 179 -Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERN 221 - Intermediate German Reading

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. __Credit Hours: 3 hrs _Prerequisite: GERN122 or by placement examination

## GERN 222 - Intermediate German Reading

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. __Credit Hours: 3 hrs _Prerequisite: GERN122 or by placement examination

## GERN 233 - Intermediate German Conversation, Composition and Grammar

This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe. __Credit Hours: 3 hrs _Prerequisite: GERN122 or equivalent

## GERN 234 - Intermediate German Conversation, Composition and Grammar

This course requires the student to practice spoken and authentically correct language in the social cultural situations that occur in German-speaking Europe. __Credit Hours: 3 hrs _Prerequisite: GERN233 or equivalent

## GERN 261 - Introduction to Professional Language Study

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. __Credit Hours: 3 hrs _Prerequisite: GERN121, GERN122, GERN221, GERN222, GERN233, GERN234

## GERN 277 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## GERN 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERN 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERN 341 - Survey of German Literature

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. __Credit Hours: 3 hrs _Prerequisite: GERN222 or department permission

## GERN 342 - Survey of German Literature

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. __Credit Hours: 3 hrs _Prerequisite:
GERN341

GERN 343-German Composition on

## Cultures and Civilization

A detailed examination of German cultures and historical and contemporary German, Austrian and Swiss life. A systematic grammar review accomplishes processoriented composition writing. __Credit
Hours: 3 hrs _Prerequisite: GERN234 or department permission

## GERN 344 - Principles of German Phonetics and Conversation

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. __Credit Hours: 3 hrs _Prerequisite: GERN234 or department permission

## GERN 361 - German for International Trade

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. __Credit Hours: 3 hrs _Prerequisite: GERN343 or department permission

## GERN 366 - The Cultures of GermanSpeaking Europe

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. __Credit Hours: 3 hrs _Prerequisite: GERN343 and GERN344

## GERN 377 - Special Topics

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.

Credit Hours: 1 hr _Prerequisite: department permission

## GERN 378 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## GERN 379 - Special Topics

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. Credit Hours: 3 hrs Prerequisite:
department permission

## GERN 388 - Internship

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 Hours: 1 hr Prerequisite: department permission _Notes: Offered on a credit/no-credit basis

## GERN 425 - German Literature from the Middle Ages to the Baroque

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. __Credit Hours: 3 hrs _Prerequisite: GERN342 or department permission

## GERN 426 - German Literature from 1750-1850

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 __Credit Hours: 3 hrs _Prerequisite: GERN342 or department permission

## GERN 427 - German Literature from 1850-1945

Selections from the literature of Poetic Realism, Biedermeier, Naturalism, NeoRomanticism and Expressionism viewed against the background of political and cultural history. Classroom discussion and student reports In German. _Credit Hours: 3 hrs _Prerequisite: GERN342 or department permission

## GERN 428 - German Literature and Film from 1945 to the Present

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. _Credit Hours: 3 hrs _Prerequisite: GERN342

## GERN 443 - German Syntax and Advanced Composition

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. __Credit Hours: 3 hrs _Prerequisite: GERN343/344 or department permission

## GERN 443W - German Syntax and Advanced Composition

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
Credit Hours: 3 hrs _Prerequisite:
GERN343/344 or department permission

## GERN 444 - Advanced German Conversation

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. Credit Hours: 3 hrs
_Prerequisite: GERN343 and GERN344 or department permission

## GERN 446 - Business German I

The idiomatic and terminology of the German economy and economic geography. Emphasis on business communication in German. __Credit Hours: 3 hrs

## GERN 447 - Business German II

The idiomatic and terminology of the German economy and management. Emphasis on business communication and correspondence in German. __Credit Hours: 3 hrs _Prerequisite: GERN446 or department permission

## GERN 451 - Readings in German

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. __Credit Hours: 1 hr _Prerequisite: department permission

## GERN 452 - Readings in German

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERN 456 - Technical German I

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. _Credit Hours: 3 hrs _Prerequisite: GERN343 or department
permission

## GERN 457 - Technical German II

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 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.
Credit Hours: 3 hrs _Prerequisite:
GERN456 or department permission

## GERN 477 - Special Topics

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.
Credit Hours: 1 hr _Prerequisite:
department permission

## GERN 478 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## GERN 479 - Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## GERN 488 - Internship

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 Hours: 2-3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis.

## GERN 489 - Internship

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 Hours: 2-3 hrs _Prerequisite: department permission _Notes: Offered on a credit/no-credit basis.

## GERN 490 - Intensive German in Europe

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. __Credit Hours: 6 hrs

## GERN 492 - Capstone Seminar in German

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 __Credit Hours: 3 hrs _Prerequisite: GERN341, GERN342, GERN444 and department permission _Concurrent Prerequisite: GERN443 _Notes: Advanced low proficiency level.

## GERN 492 - Capstone Seminar in German

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 __Credit Hours: 3 hrs _Prerequisite:
GERN341, GERN342, GERN444 and department permission _Concurrent Prerequisite: GERN443 _Notes: Advanced low proficiency level.

## GERN 493 - Reading Knowledge of German

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. __Credit Hours: 3 hrs

## GERN 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hrs _Prerequisite: department permission

## GERN 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERN 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERT 177 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## GERT 178 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERT 179 - Special Topics

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. Credit Hours: 3 hrs
_Prerequisite: department permission

## GERT 212 - Introduction to Gerontology

In-depth exploration of: gerontology as a profession/discipline; historical, social and policy influences that shape the field; the diversity of the aging experience through the introduction of six field domains (Theory, Research, Education, Practice, Policy, Service);professional literature, media and online resources; gerontology-specific and gerontology-related career opportunities; professional organizations. __Credit Hours: 3 hrs

## GERT 219 - Around the World in 80

 Years: Adult Development Across CultureThrough the study of adult development, students will consider how the aging of the world's population is affecting diverse cultures, societies - and families - across the globe. Issues of social justice and empowerment related to population aging will addressed, particularly the social, economic, political and policy consequences.
__Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with ANTH219 and SOCL219.

## GERT 277 - Special Topics

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. _Credit Hours: 1 hr _Prerequisite: department permission

## GERT 278 - Special Topics

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. _Credit Hours: 2 hrs _Prerequisite: department permission

## GERT 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERT 377 - Special Topics

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. Credit Hours: 1 hr _Prerequisite: department permission

## GERT 378 - Special Topics

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. _Credit Hours: 2 hrs
_Prerequisite: department permission

## GERT 379 - Special Topics

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. __Credit Hours: 3 hrs Prerequisite: department permission

## GERT 417 - Work and Retirement

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. __Credit Hours: 2 hrs _Prerequisite: junior/senior or graduate student

## GERT 466 - Edna Gates Conference: Seminar on Dementia Care

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. __Credit Hours: 1 hr _Prerequisite: junior/senior standing

## GERT 477 - Special Topics

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. _Credit Hours: 1 hr _Prerequisite: department permission

## GERT 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERT 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERT 488 - Gerontology Practicum/ Seminar

Integration of knowledge and skills gained from other gerontology courses and life experiences. Insights on aging available from the humanities disciplines. __Credit Hours: 2 hrs _Prerequisite: senior standing, completion of two courses in the gerontology minor or advising coordinator's permission

## GERT 489 - Gerontology Practicum/ Seminar

Integration of knowledge and skills gained from other gerontology courses and life experiences. Insights on aging available from
the humanities disciplines. __Credit Hours: 3 hrs _Prerequisite: senior standing, completion of two courses in the gerontology minor or advising coordinator's permission

## GERT 497 - Independent Study

Directed study in areas not provided in other course offerings or advanced study in areas of special interest to the student. __Credit Hours: 1 hr _Prerequisite: department permission

## GERT 498 - Independent Study

Directed study in areas not provided in other course offerings or advanced study in areas of special interest to the student. __Credit Hours: 2 hrs _Prerequisite: department permission

## GERT 499 - Independent Study

Directed study in areas not provided in other course offerings or advanced study in areas of special interest to the student. __Credit Hours: 3 hrs _Prerequisite: department permission

## GERT 509 - Older Adults and Chemical Dependency

This course is a survey of the epidemiology, clinical presentation, public policy issues and current treatment models for geriatric chemical dependency. Emphasis will be placed on both clinical and policy issues related to access to treatment and the types of treatment available. __Credit Hours: 1 hr _Notes: This is a graduate course in an undergraduate program.

## GERT 511 - Elders and Their Families

Examines the nature and significance of family and family-like relationships in later life, including long-term marriage, widowhood, divorce, remarriage, adult-to-adult/parent-child relationships, grandparenthood, siblingship and friendship. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 513 - Intergenerational Programs and Services

Learners will explore common connections between elders and youth, examine factors that support or hinder intergenerational relationships and develop an intergenerational program or service plan. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 515 - Sexuality and Aging

Examines factors affecting sexual expression, capacity and relationships in later life; considers special population needs/issues (e.e., disabled elders, homosexuality, sexuality and dementia, HIV/AIDS, women).
__Credit Hours: 1 hr _Notes: This is a
graduate course in an undergraduate program.

## GERT 516 - The Elderly and the Law

This course discusses the legal issues and implications surrounding health care, longterm care, public entitlement programs, termination of life support, guardianship and alternatives, and intergenerational family issues. __Credit Hours: 1 hr _Notes: This is a graduate course in an undergraduate program.

## GERT 517 - Developing Funding Proposals for Aging Programs

This course is designed to provide the students with grantsmanship theory and an introduction to the basic skills needed to research and select appropriate aging funders, and develop grant proposals for funding aging programs. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program

## GERT 518 - innovations in Alzheimer's Care

This graduate-level seminar will provide an overview of dementia and its impact on quality-of-life issues for families and individuals with Alzheimer's disease and related conditions. Emphasis will be placed on exploring innovations in Alzheimer's care designed to accommodate dementia-related changes through the continuum of the disorder. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate
program.

## GERT 523 - Designing Programs for People with Dementia

This seminar examines issues involved in designing meaningful programs that address the cognitive, physical and psychosocial needs of persons with dementia. A fieldwork assignment provides students the opportunity to design, implement and evaluate a small group program. Students may choose a site for this assignment. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 524 - Families and Dementia

This class looks at family care giving of people with dementia by addressing primary concerns, needs, assessment issues and interventions appropriate to the early, middle and late stages of dementia, and the period after the family member's death. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 528 - Advanced Issues in Dementia Care

Seminar focuses in depth on assessment and treatment of Alzheimer's disease, dementia with Lewy bodies, picks, Creutzfeldt Jakob disease and related disorders. An interdisciplinary team will facilitate discussions on specialized care issues. Students will participate in an innovative service-learning project involving in-home respite. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 530-Assessment of Individuals with Dementia

Course examines in depth the components of a comprehensive geriatric assessment and ways to structure the assessment so that an individualized action plan can be developed for people with dementia. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## the Old

Course is designed to provide students with an opportunity to learn what it is to experience being old by reading journals and books written by or about older people who use their writings to come to terms with old age. Also, the class will delve into a number of theories that are helpful for understanding that aging process and the readings. Film, music and storytelling will be part of the learning experience. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## GERT 590 - Special Topics

Content will change from semester to semester. An experimental course for subject matter not yet provided in other program offerings. Students may elect this course more than once, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
Credit Hours: 1 hr _Notes: This is a graduate course in an undergraduate program.

## GHPR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GHPR 178 -Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## GHPR 179-Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GHPR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## GHPR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GHPR 279-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GHPR 335 - Historic Preservation

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. __Credit Hours: 3 hrs _Prerequisite: GEOG115

## GHPR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GHPR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GHPR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GHPR 387-Cooperative Education in Historic Preservation

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.. __Credit Hours: 3 hrs _Prerequisite: completion of sophomore year, historic preservation or selected minor; admittance by application only _Notes: Graded on a credit/no-credit basis

## GHPR 401 - Planning/ Preservation Graphics

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. __Credit Hours: 3 hrs _Prerequisite: GPLN215. _Cross-Listed: This course is cross-listed with GPLN401

## GHPR 436 - Historic Preservation Field Project

Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation. __Credit Hours: 3 hrs _Prerequisite: department permission

## GHPR 437 - Historic Preservation Field Project

Specially arranged, supervised field experiences and application of theoretical viewpoints to field problems in historic preservation. __Credit Hours: 6 hrs _Prerequisite: department permission

## GHPR 475-Architectural Nomenclature

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. _Credit Hours: 2 hrs

## GHPR 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## GHPR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## GHPR 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GHPR 487 - Cooperative Education in Historic Preservation

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. __Credit Hours: 3 hrs _Prerequisite: completion of junior year, historic preservation or related minor _Notes: Graded on a credit/no-credit basis

## GHPR 488 - Internship

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 __Credit Hours: 4 hrs _Prerequisite: department permission and placement _Notes: May be taken only once
for credit.

## GHPR 489 - Internship

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. __Credit Hours: 5 hrs _Prerequisite: department permission and placement _Notes: May be taken only once for credit.

## GHPR 490 - Internship

Supervised internship in some aspect of historic preservation, historic administration or heritage interpretation that is of mutual interest to the qualified __Credit Hours: 6 hrs _Prerequisite: department permission and placement _Notes: May be taken only once for credit.

## GHPR 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## GHPR 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## GHPR 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## GPLN 115 - The American City

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. __Credit Hours: 3 hrs

## GPLN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## GPLN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## GPLN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## GPLN 215 - Introduction to Urban and Regional Planning

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. _Credit Hours: 3 hrs _Prerequisite: sophomore standing

## GPLN 216 - Readings in Urban Planning

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. _Credit Hours: 2 hrs _Prerequisite: sophomore standing
_Concurrent Prerequisite: GPLN215

## GPLN 276 - Principles of Geographic Information Systems

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 georeferencing 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.).
__Credit Hours: 3 hrs _Prerequisite:
GEOG107, GEOG110, ESSC108 or ESSC110. _Cross-Listed: This course is cross-listed with GEOG276

## GPLN 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## GPLN 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## GPLN 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## GPLN 306 - Comprehensive Planning and

## Zoning

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.
__Credit Hours: 3 hrs _Prerequisite:
GPLN215 and GPLN216

## GPLN 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## GPLN 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## GPLN 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## GPLN 387-Cooperative Education

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 fulltime University attendance. A written report is required at the end of each employment period __Credit Hours: 3 hrs _Prerequisite: completion of sophomore year; urban and regional planning major; admittance by application only _Cross-Listed: This course is cross-listed with GPLN487 _Notes: Offered on a credit/no-credit basis.

## GPLN 401 - Planning/ Preservation Graphics

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. __Credit Hours: 3 hrs _Prerequisite: GPLN215 _Cross-Listed: This course is cross-listed with GHPR401

## GPLN 409 - Professional Practice for Planners

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. __Credit Hours: 3 hrs
_Prerequisite: GPLN215 and senior standing
_Corequisites: GPLN410

## GPLN 410 - Site Planning Studio

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. __Credit Hours: 3 hrs _Prerequisite: GPLN215 and GPLN306 and senior standing

## GPLN 435 - History of Urban Form and Function

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.
__Credit Hours: 3 hrs _Prerequisite:
GPLN215 and GPLN216. _Notes: GEOG332 is recommended.

## GPLN 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## GPLN 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GPLN 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## GPLN 487-Cooperative Education

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 fulltime University attendance. A written report is required at the end of each employment period. __Credit Hours: 3 hrs _Prerequisite: completion of sophomore year; urban and regional planning major; admittance by application only _Cross-Listed: This course is cross-listed with GLPN387 _Notes: Offered on a credit/no-credit basis

## GPLN 488 - Internship

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.. __Credit Hours: 4 hrs _Prerequisite:
department permission; sophomore standing

## GPLN 489 - Internship

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. __Credit Hours: 5 hrs _Prerequisite:
department permission; sophomore standing

## GPLN 490 - Internship

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.
__Credit Hours: 6 hrs _Prerequisite:
department permission; sophomore standing

## GPLN 495-Environmental Assessment and Planning

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. __Credit Hours: 3 hrs _Prerequisite: GPLN215 or GPLN276 _Cross-Listed: This course is cross-listed with ESSC495

## GPLN 497 - Independent Study

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. __Credit Hours: 1 hrs _Prerequisite: department permission; sophomore standing

## GPLN 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission; sophomore standing

## GPLN 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission; sophomore standing

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. _Credit Hours: 3 hrs

## GREK 102 - Beginning Ancient Greek II

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. __Credit Hours: 3 hrs _Prerequisite: GREK101

## GREK 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GREK 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GREK 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GREK 201 - Intermediate Ancient Greek I

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. __Credit Hours: 3 hrs _Prerequisite: GREK102

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. __Credit Hours: 3 hrs _Prerequisite: GREK201

## GREK 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GREK 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GREK 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GREK 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## GREK 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GREK 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

## GREK 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## GREK 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## GREK 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## GREK 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## GREK 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## GREK 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## HECR 177 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr

## HECR 178 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HECR 179 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HECR 277 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HECR 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HECR 279 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HECR 280 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 4 hrs _Prerequisite: department permission

## HECR 287 - Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. __Credit Hours: 1 hr _Prerequisite: approval of the Cooperative

Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 288 - Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience.
_Credit Hours: 2 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 289 - Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser __Credit Hours: 3 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HECR 378 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HECR 379 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HECR 387 - Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser __Credit Hours: 1 hr
_Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 388-Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. __Credit Hours: 2 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 389 - Cooperative Education in HECR

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. __Credit Hours: 3 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HECR 476 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HECR 477 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HECR 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HECR 479 - Special Topics

An experimental course designed to investigate specific topics of concern in
specialization areas. __Credit Hours: 4 hrs _Prerequisite: department permission

## HECR 494 - Food SystemsManagement II

Application of supervisory processes to food service systems with emphasis on cost and quality control in food production and labor management __Credit Hours: 1 hr _Prerequisite: HRM150, MGMT384 and MICR328 _Notes: Open only to dietetics students.

## HECR 497 - Directed Study

Opportunity for qualified senior students to carry on an intensive study or project in their area of specialization. __Credit Hours: 1 hr _Prerequisite: department permission

## HECR 498 - Directed Study

Opportunity for qualified senior students to carry on an intensive study or project in their area of specialization. __Credit Hours: 2 hrs _Prerequisite: department permission

## HECR 499 - Directed Study

Opportunity for qualified senior students to carry on an intensive study or project in their area of specialization. __Credit Hours: 3 hrs _Prerequisite: department permission

## HIST 100 - The Comparative Study of Religion

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. __Credit Hours: 3 hrs

## HIST 101 - Western Civilization to 1648

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. $\qquad$ Credit Hours: 3 hrs

## HIST 102 - Western Civilization, 1648 to World War I

A topical survey of western civilization from the 17 th 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. __Credit Hours: 3 hrs

## HIST 103-20th-Century Civilization

An examination of the international developments of the 20th century, with particular emphasis on the interactions between the West and other world cultures. __Credit Hours: 3 hrs

## HIST 104 - Quest for Power: Famous Figures in History

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with CLAS104 _Notes: This course satisfies one literature or one history requirement. Note: see honors humanities courses

## HIST 106 - Asian and African Civilizations

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. __Credit Hours: 3 hrs

## HIST 109 - World History to 1500

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. $\qquad$ Hours: 3 hrs

## HIST 110 - World History since 1500

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. __Credit Hours: 3 hrs

## HIST 115- Making American Society: Race, Ethnicity and Gender in Historical Perspective

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. __Credit Hours: 3 hrs

## HIST 116 - Intro to American Indian History

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. __Credit Hours: 3 hrs

## HIST 123 - The United States to 1877

A study of United States history through the Reconstruction following the Civil War. __Credit Hours: 3 hrs

## HIST 124 - The United States, 1877 to the Present

A study of United States history from the end of Reconstruction to the present. __Credit Hours: 3 hrs

## HIST 151 - Reason and Revolution

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. __Credit Hours: 3 hrs

## HIST 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## HIST 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HIST 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HIST 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: one course in history or department permission

## HIST 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: one course in history or department permission

## HIST 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 290 - Introduction to the History of Technology

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.
__Credit Hours: 3 hrs

## HIST 300 - Researching and Writing History

An introduction to the historian's skills. Exercises include compiling a bibliography, writing book reviews and preparing a research paper. __Credit Hours: 3 hrs _Notes: Required for the history major.

## HIST 300W - Researching and Writing History

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Notes: Required for the history major.

## HIST 301 - The Religions of South and East Asia

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. __Credit Hours: 3 hrs _Prerequisite: HIST100, HIST106 or department permission

## HIST 302 - Near Eastern and Western

 ReligionsA 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. __Credit Hours: 3 hrs _Prerequisite: HIST100, HIST101 or department permission

## HIST 303 - History of American Religion

A survey of religious institutions and ideas in relation to American culture from colonial times to the present. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 305 - Native American History

An ethnohistory of America's indigenous peoples and nations from before contact to the present. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 306 - Hinduism

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## HIST 307 - Buddhism

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## HIST 309 - France to 1789

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. __Credit Hours: 3 hrs

## HIST 310 - France since 1789

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. __Credit Hours: 3 hrs _Prerequisite: HIST102 or department permission

## HIST 313 - Michigan History

A survey of major economic, social and political developments in Michigan from prehistoric times to the present. Emphasizes the period prior to the 20 th century. __Credit Hours: 3 hrs

## HIST 315 - History of Black Americans

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. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 316 - History and Geography of Modern Europe

An interdisciplinary and geographicalhistorical 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 __Credit Hours: 3 hrs _Prerequisite: GEOG110 and either HIST101, HIST102 or HIST103 _Notes: Must be taken concurrently with GEOG316.

## HIST 317 - History and Geography of Spanish America

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. __Credit Hours: 3 hrs _Prerequisite: GEOG1 10 and either HIST101, HIST102 or HIST103 _Notes: Must be taken concurrently with GEOG317

## HIST 319 - The Civil Rights Movement in the United States

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. _Credit Hours: 3 hrs _Prerequisite: HIST124, HIST315 or department permission

## HIST 320 - Women and Gender in the Ancient World

An investigation of conditions of life for women in antiquity, focusing on the sexgender 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. __Credit Hours: 3 hrs _Prerequisite: one course in history. _Cross-Listed: This class is cross-listed with GLAS321/WGST321

## HIST 321 - Women and Gender in the Ancient World

An investigation of conditions of life for women in antiquity, focusing on the sexgender 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. __Credit Hours: 3 hrs _Prerequisite: one course in history _Cross-Listed: This course is cross-listed with CLAS321/WGST321

## HIST 323 - Greek History

Examines the Greeks' achievements from the Bronze Age to the Roman conquest, focusing on the period after 800 B.C.E. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 323 - Greek History

Examines the Greeks' achievements from the Bronze Age to the Roman conquest, focusing on _the period after 800 B.C.E. Emphasizes political, social and economic developments; also considers literary, intellectual and artistic accomplishments. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 324 - Roman History

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. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 326 - History and Geography of Modern Asia

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. __Credit Hours: 3 hrs _Prerequisite: GEOG110 and either HIST103 or HIST106 _Notes: Must be taken concurrently with GEOG326

## HIST 327 - Europe in Early Middle Ages 400-1050

Analyzes emergence of common European culture from fusion of Roman, Germanic and Christian elements. Includes examination of Merovingian and Carolingian culture, AngloSaxon Britain, Ottonian Germany, medieval Christianity and medieval women. Cultural institutions of Celts, Moslems and Vikings also explored. __Credit Hours: 3 hrs

## HIST 328 - Europe in Late Middle Ages 1050-1400

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. __Credit Hours: 3 hrs

## HIST 330 - Europe in the Renaissance and Reformation

A survey of the political, cultural, religious and economic history of Europe from the
Italian Renaissance to the Peace of
Westphalia.__Credit Hours: 3 hrs

## HIST 332 - Modern Europe 1815-1919

A study of the development and conflicts of the national states of Europe from the Congress of Vienna to the Treaty of Versailles. __Credit Hours: 3 hrs

## HIST 333 - Europe since 1919

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 335 - History of Women in Europe

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. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission _Cross-Listed: This course is cross-listed with WGST335

## HIST 336 - History of Women in the United States and Great Britain, 1800 to the Present

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.
__Credit Hours: 3 hrs _Prerequisite: one
course in history or department permission

Cross-Listed: This course is cross-listed with WGST335

## HIST 338 - German History Since 1815

Considers unification and Empire, World War I, the Weimar Republic, the rise of National Socialism, World War II and postwar Germany. __Credit Hours: 3 hrs _Prerequisite: junior or department permission

## HIST 339 - Arab-Israeli Conflict

Course covers a major, ongoing issue in 19thand 20th-century history, namely the conflicts between Arabs and Israelis in the Middle East. _Credit Hours: 3 hrs Prerequisite: one course in history or one course in political science or department permission

## HIST 341 - The Middle East, 1798 to the Present

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. Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 342 - North Africa, 1798 to the Present

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 343 - Russia to 1855

A survey of political, economic and cultural trends in the history of Russia from Riurik to the death of Tsar Nicholas I, with special emphasis on the growth of tsarist absolutism. _Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 344 - Russia since 1855

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 347 - Sub-Saharan Africa to 1885

The historical evolution of sub-Saharan African civilizations including their origins, interrelations and responses to European colonialism. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 348-20th-Century Africa

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. __Credit Hours: 3 hrs

## HIST 349 - South Africa, 1500-Present

Examines the evolution of a multi-racial society: the Khoisan foragers, Bantu agropastoralists, European colonists, mixed blood "coloreds" and Asian indentured immigrants. Explores capitalists development and race relations arising from the mineral revolution of the late $19^{\text {th }}$ century. The emergence and operations of the policies of segregation and apartheid are covered completely. __Credit Hours: 3 hrs _Prerequisite: junior standing

## HIST 350 - History of Canada

A survey of the development of Canada from prehistoric times to the present with an emphasis on social and economic topics. __Credit Hours: 3 hrs

## HIST 355 - Latin America: Colonial Period

Surveys the history of Spanish America and Portuguese America from the conquest to the independence era, stressing political, social and economic aspects. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 356 - Latin America: National Period

Surveys the history of Latin America from the independence era to the present, stressing political, social, intellectual and economic topics. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 362 - United States Urban History

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 364 - United States Military History

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. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 365 - The Old South

The South from the colonial foundations to the formation of the Confederacy in 1861.
__Credit Hours: 3 hrs _Prerequisite:
HIST123 or department permission

## HIST 370 - History of American Sport

A study of American sports, recreation and leisure from the colonial period to the present day. The course discusses the role that sports has played in the development of American culture that participates in these activities. The course also examines the role of sport in defining social identities, gender roles, class distinctions, regional variations and statements of individual and collective achievement. __Credit Hours: 3 hrs _Prerequisite: HIST123 or HIST124

## HIST 375 - Modern India

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. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: one course in history or department permission

## HIST 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: one course in history or department permission

## HIST 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 380 - American Colonies to Independence

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. __Credit Hours: 3 hrs _Prerequisite: HIST123 or department permission

## HIST 383 - The Age of Jackson

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" hrs and the social movements of the era. _Credit Hours: 3 hrs _Prerequisite: HIST123

## HIST 385-Civil War and Reconstruction

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.
_Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 387 - Cooperative Education in History

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 fulltime attendance at the University. __Credit Hours: 3 hrs _Prerequisite: junior standing; history or social studies major; admittance to program by application only; department permission

## HIST 411 - England to 1689

The general history of England to the Revolution of 1688 , with emphasis on its cultural and constitutional contributions to the modern world. __Credit Hours: 3 hrs

## HIST 412 - England 1689 to Present

England in the period of imperial expansion, its industrial and social revolutions and its transition into a modern socially minded nation. __Credit Hours: 3 hrs _Notes: A continuation of HIST411.

## HIST 414 - The Automobile Industry and Modern America

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. __Credit Hours: 3

## HIST 415 - Sexual Communities in American History

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.
__Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST415

## HIST 424 - The United States from 1917 to 1941

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.
Credit Hours: 3 hrs _Prerequisite:
HIST124 or department permission

## HIST 425 - The United States from 1941 to 1963

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. _Credit Hours: 3 hrs _Prerequisite: HIST124 or department permission

## HIST 426 - The United States from 1963 to

 the PresentA 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. Credit Hours: 3 hrs _Prerequisite:
HIST124 or department permission

## HIST 427 - Europe from Absolutism to Revolution, 1648-1815

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. __Credit Hours: 3 hrs

## HIST 435 - Italy since 1815

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 441 - The Far East to 1800

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. __Credit Hours: 3 hrs _Prerequisite: one history course

## HIST 442 - Modern China

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. __Credit Hours: 3 hrs _Prerequisite: one history course

## HIST 443 - Modern Japan

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. __Credit Hours: 3 hrs
_Prerequisite: one course in history

## HIST 444 - China and its Nomadic Neighbors

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. __Credit Hours: 3 hrs _Prerequisite: one course in history; junior standing

## HIST 450 - European Military History, 1815-1945

This course will examine the European art of war from Napoleon to the end of World War II. Topics include the Boer War, RussoJapanese 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. __Credit Hours: 3 hrs

## HIST 451 - History of the First World War 1914-1918

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. __Credit Hours: 3 hrs

## HIST 456 - Europe since 1945

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 detente.
__Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 457 - History of Mexico

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.
__Credit Hours: 3 hrs _Prerequisite: junior
standing or department permission

## HIST 461 - Foreign Relations of the United States

A survey of the foreign relations of the United States emphasizing the diplomacy of the period after the Civil War. __Credit Hours: 3 hrs

## HIST 463 - United States Labor History

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 workingclass life and culture, labor unions, government-labor relations and the impact of economic change. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 464 - The Old West, 1540-1890

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. __Credit Hours: 3 hrs _Prerequisite: one course in history

## HIST 465 - United States Constitutional History

A history of the development of the American Constitution from English and American colonial origins to the present. __Credit Hours: 3 hrs _Prerequisite: HIST123 or HIST124 or department permission

## HIST 468 - The American Mind to the Civil War

Ideas and culture in America during the 17th, 18 th and early 19 th centuries. Includes such subjects as Puritanism, the Enlightenment
and Romanticism/Transcendentalism, together with their general cultural implications. __Credit Hours: 3 hrs _Prerequisite: HIST123 and junior standing

## HIST 469 - The American Mind Since the Civil War

Ideas and culture in America during the late19th and 20th centuries. Includes such subjects as pragmatism, social Darwinism, nationalism and internationalism, and liberal and conservative thought together with their general cultural implications. __Credit Hours: 3 hrs _Prerequisite: one course in history and junior standing

## HIST 471 - Social and Intellectual History of 19th-Century Europe

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. __Credit Hours: 3 hrs _Prerequisite: junior standing or department permission

## HIST 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: one course in history or department permission

## HIST 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: one course in history or department permission

## HIST 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: one course in history or department permission

## HIST 480 - The American Revolution

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. __Credit Hours: 3 hrs _Prerequisite: HIST123 and junior status.

## HIST 481 - The Teaching of Social Studies

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.
__Credit Hours: 3 hrs _Prerequisite:
admission to the teacher education program

## HIST 482 - The Age of Washington and <br> Jefferson

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. __Credit Hours: 3 hrs _Prerequisite: HIST123 or equivalent

## HIST 486 - The United States as an Emerging World Power

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. __Credit Hours: 3 hrs _Prerequisite: HIST123, HIST124 or department permission

## HIST 487 - Internship

Credit Hours: 3 hrs

## HIST 488 - Internship

Credit Hours: 3 hrs

Credit Hours: 3 hrs

## HIST 497 - Independent Study

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. __Credit Hours: 1 hr
_Prerequisite: department permission

## HIST 498 - Independent Study

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 __Credit Hours: 2 hrs _Prerequisite: department permission

## HIST 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## HIST 543 - Nationalism and Modernization in the Middle East and North Africa

The development of nationalism and modernization in the Middle East and North Africa from World War I to the presents; political and social changes occurring in this developing area. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## HIST 547-19th Century Ideological Background of the Russian Revolution

Russian thought from the accession of Nicholas I (1825) until the Bolshevik Revolution. Major themes to be treated are the Slavophiles and Westernizers, socialism, anarchism, nihilism, populism, liberalism and
conservation. __Credit Hours: 3 hrs _Prerequisite: one course in modern European history _Notes: This is a graduate course in an undergraduate program.

## HIST 550-20th Century Russia

Political, diplomatic, social and cultural developments in Russia from 1894 to the present. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## HIST 555 - Studies in Far Eastern History

Study of selected eras and areas of Chinese history. The topic selected will be announced in the time schedule. __Credit Hours: 2 hrs _Prerequisite: one course in Far Eastern history _Notes: This is a graduate course in an undergraduate program.

## HIST 560 - Studies in Latin American History

An intensive investigation of selected political, economic, social and cultural topics in Latin American history. The specific topics and chronological coverage are announced in the class schedule. _Credit Hours: 2 hrs _Notes: This is a graduate program in an undergraduate program.

## HLAD 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## HLAD 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLAD 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided
different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLAD 250 - Introduction to Public Health

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## HLAD 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## HLAD 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLAD 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLAD 287-Cooperative Education in Health Education

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.
__Credit Hours: 3 hrs _Prerequisite:
sophomore standing and health
administration major

## HLAD 300 - Health Care Issues

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. __Credit Hours: 2 hrs

## HLAD 305 - The U.S. Health Care System

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 __Credit Hours: 3 hrs _Notes: (encouraged in sophomore year or early junior year).

## HLAD 307-Communication Effectiveness in Health Administration

This course offers a structured approach to the principal categories of formal communication within health care systems and organizations. The course highlights the need for precision and the uniqueness of the health care system as specialized venue for communications. The course includes formal writing, oral communications, writing for internal or external technical reports, proposals and evaluations. The course concludes with an assessment of evolving electronic media for communications within health systems. __Credit Hours: 3 hrs _Corequisites: HLAD305

## HLAD 307W - Communication Effectiveness in Health Administration

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for a course description. Credit Hours: 3 hrs _Prerequisite: HLAD305

## HLAD 308 - Ethical Dimensions in Health Care Delivery

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

## HLAD 310 - Administration of Health Care Organizations

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.
_Credit Hours: 2 hrs _Prerequisite:
HLAD300 or HLAD305

## HLAD 311 - Management of Health Services

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. __Credit Hours: 3 hrs _Prerequisite: HLAD310

## HLAD 312 - Health Personnel <br> Management and Development

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. __Credit Hours: 3 hrs _Prerequisite: HLAD305

## HLAD 315 - Research Methods and Data Analysis in Health Sciences

Introduction to the application of statistical methods and research design to a range of practice and research problems in the health sciences. __Credit Hours: 3 hrs _Prerequisite: college algebra

## HLAD 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLAD 379-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLAD 387-Cooperative Education in Health Education

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## HLAD 390 - Poverty, Human Rights and Health

This interdisciplinary course examines connections between poverty, human rights and health, focusing on how social/political structures and public polices affect human well being. Prerequisite for HLAD/PLSC391, experiential learning through a class trip to a developing country to meet community organizers and policy specialists working on poverty and health issues. __Credit Hours: 3 hrs _Prerequisite: sophomore, junior or senior standing _Cross-Listed: This course is crosslisted with PLSC390.

## HLAD 391 - Field Study: Global Experience - Poverty, Human Rights and Health

Interdisciplinary course offering experiential learning through travel abroad to develop country to meet community organizers and policy specialists working on poverty and health issues. Examines connections between poverty, human rights and health, focusing on how social/political structures and public policies affect human well being. __Credit Hours: 3 hrs _Prerequisite: HLAD/PLSC390 and sophomore, junior or senior standing
_Cross-Listed: This course is cross-listed with PLSC391.

## HLAD 401 - Legal Issues in Health Care

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. __Credit Hours: 3 hrs

## HLAD 416 - Health Planning

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.
_Credit Hours: 3 hrs _Prerequisite:
HLAD310

## HLAD 417 - Health Regulation

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.
Credit Hours: 3 hrs _Prerequisite:
HLAD310

## HLAD 418 - Principles of Healthcare Finance Management

Principles of Healthcare Finance provides students with procedures and techniques that assist healthcare managers in accomplishing the health care organizations purpose.

Credit Hours: 3 hrs _Prerequisite:
HLAD305/310 and ACC240

## HLAD 420 - Health Insurance and Reimbursement

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. __Credit Hours: 3 hrs _Prerequisite: HLAD310

## HLAD 421 - Managed Care

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. __Credit Hours: 3 hrs _Prerequisite: HLAD420

## HLAD 425 - Decision Making for Health

 AdministratorsThe integration of many knowledge areas into health administration. A capstone course utilizing case studies, role playing, simulation and games. __Credit Hours: 3 hrs
_Prerequisite: HLAD420

## HLAD 460 - Long-Term Care

## Administration

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. __Credit Hours: 3 hrs _Prerequisite: HLAD310 or HLAD510 and senior standing

## HLAD 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## HLAD 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLAD 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLAD 480 - Internship Seminar in Health Administration

Seminar for those students taking an internship to provide a forum for the exchange of ideas and experiences. __Credit Hours: 2 hrs _Prerequisite: HLAD310 and department permission

## HLAD 488 - Internship

Internship to provide formally structured and directed work experience to assist in integrating classroom learning with professional perspectives and working requirements. __Credit Hours: 6 hrs _Prerequisite: Program permission, concurrent enrollment in HLAD480

## HLAD 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: program permission

## HLAD 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: program permission

## HLAD 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: program permission

## HLAD 510 - Medical Care Organization

A theoretical approach to the medical care system that allows the consideration of the key problems and issues such as DRG-based prospective payment, alternative delivery systems, and cost-quality tradeoffs. __Credit Hours: 3 hrs _Prerequisite: senior status with a minimum 2.8 GPA _Notes: This is a graduate course in an undergraduate program.

## HLED 130 - Healthy Sexuality

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.
__Credit Hours: 3 hrs

## HLED 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## HLED 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLED 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## HLED 210 - Standard American Red Cross First Aid

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. __Credit Hours: 2 hrs

## HLED 250 - Communicable and Noncommunicable Diseases

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. __Credit Hours: 3 hrs

## HLED 270 - Principles of Health Education

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. __Credit Hours: 3 hrs

## HLED 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## HLED 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLED 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLED 302 - From Host to Host: The Communicable Diseases

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 audiovisual materials. __Credit Hours: 1 hr

## HLED 305 - Current Health Issues I

This course offers a broad overview of several health education issues, including consumer health education, environmental health education, intentional 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. __Credit Hours: 3 hrs

## HLED 315 - Current Health Issues II

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. __Credit Hours: 3 hrs

## HLED 320 - Health Education in the Elementary Grades

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. __Credit Hours: 2 hrs _Prerequisite: sophomore standing; admission to the teacher education program

## HLED 325 - Instructional Skills and Strategies for Health Education

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. __Credit Hours: 3 hrs _Prerequisite: HLED270 and HLED305 or HLED315

## HLED 340 - Health Education and Nutrition: Enhancing Health and Fitness

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 fitnessrelated fields who will have responsibility for educating future students or clients. Methods include lectures, discussion, personal dietary analysis and the use of Web resources.
__Credit Hours: 3 hrs

## HLED 350 - Scientific Foundations in Health Education

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. __Credit Hours: 3 hrs

## HLED 355 - Health Education Program Planning

This course is designed to prepare school health and 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. __Credit Hours: 3 hrs _Prerequisite: HLED270 and HLED305 or HLED315

## HLED 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## HLED 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLED 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## HLED 380 - Psychosocial Health and Service Learning

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. __Credit Hours: 3 hrs _Prerequisite: HLED350

## HLED 399 - Teaching about AIDS

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. __Credit Hours: 1 hr _Prerequisite: one course in AIDS or department permission

## HLED 402 - Selecting Health Products and Services

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## HLED 420 - Health and Aging

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## HLED 450 - Health Education Assessment

This course provides an introduction to the use of assessment strategies for health education. Methods include lecture, discussion and active learning projects. __Credit Hours: 3 hrs _Prerequisite: HLED325

## HLED 460 - Concepts in Sexuality Education

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. __Credit Hours: 3 hrs

## HLED 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLED 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## HLED 480 - Stress Management for Teachers

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. __Credit Hours: 1 hr

## HLED 481 - Life Loss Education for Teachers

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. __Credit Hours: 1 hr

## HLED 482 - Conflict Resolution for Teachers

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. __Credit Hours: 1 hr

## HLED 490 - Drug Use and Abuse

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, and student presentations. _Credit Hours: 3 hrs

## HLED 495 - Health Education for Diverse Populations

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. __Credit Hours: 3 hrs

## HLED 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## HLED 498 - Directed Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## HLED 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## HRM 103 - Introduction to the Hospitality Industry

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. __Credit Hours: 3 hrs

## HRM 150 - Sanitation in the Hospitality Industry

Management of basic sanitation in foodservice and lodging facilities. Meets specifications required for National Institute for the Food Service Industry certification.
__Credit Hours: 2 hrs

## HRM 177 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HRM 178 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HRM 179 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HRM 180 - Food Production

Study of kitchen sanitation and safety, food preparation and storage. Includes menu design based on customer needs and
preparation of final buffet. __Credit Hours: 3 hrs _Prerequisite: HRM150 and admission to the Hotel and Restaurant Management program

## HRM 251 - Meal Service Management

Theories, principles and skills for food and beverage service in institutional, commercial and resort properties. Supervisory techniques and training styles effective for food service.
__Credit Hours: 3 hrs

## HRM 268 - Hotel Operations Management

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.
__Credit Hours: 3 hrs _Prerequisite:
sophomore standing

## HRM 270 - People Skills for the Hospitality Industry

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. __Credit Hours: 3 hrs

## HRM 277 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HRM 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. _Credit Hours: 2 hrs _Prerequisite: department permission

## HRM 279 - Special Topics

An experimental course designed to investigate specific topics of concern in
specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HRM 287 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic advise. __Credit Hours: 1 hr _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only

## HRM 288 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. __Credit Hours: 2 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HRM 289 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser __Credit Hours: 3 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HRM 330 - Hotel and Restaurant Management

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. __Credit Hours: 3 hrs _Prerequisite: STS201 or BMMT201 or STS201 and junior standing

## HRM 340 - Cost Controls in the Hospitality Industry

Techniques used by hospitality managers to control food, equipment, labor and operating costs. Purchasing, labor and pilferage controls and fiscal management. __Credit Hours: 3 hrs _Prerequisite: MATH1 10 or higher

## HRM 350 - Lodging Facilities Management

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. __Credit Hours: 3 hrs

## HRM 360 - Franchising and Contract Management

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 foodservice and lodging establishments will be discussed. __Credit Hours: 3 hrs

## HRM 376 - Legal Aspects of the Hospitality Industry

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. __Credit Hours: 3 hrs _Prerequisite: three courses in major

## HRM 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HRM 378 - Special Topics

An experimental course designed to investigate specific topics of concern in
specialization areas. __Credit Hours: 2 hrs
_Prerequisite: department permission

## HRM 379 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs
_Prerequisite: department permission

## HRM 387 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser __Credit Hours: 1 hr _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HRM 388 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser. __Credit Hours: 2 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HRM 389 - Cooperative Education in Hotel and Restaurant Management

Employment in an appropriate setting, chosen to provide supervised practical experience. Credit hours determined by program area and academic adviser __Credit Hours: 3 hrs _Prerequisite: approval of the Cooperative Education Office and department permission _Notes: Offered on credit/no-credit basis only.

## HRM 396-Club and Resort Management

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. __Credit Hours: 3 hrs _Prerequisite: three courses in major

## HRM 410 - Human Resource Issues in the Hospitality Industry

Hotel and restaurant industry issues related to the administration of personnel with emphasis on strategies for successful recruitment, employment and retention of employees, particularly teenaged, 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. __Credit Hours: 3 hrs _Prerequisite: MGMT384

## HRM 420 - Quality Service Management

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. __Credit Hours: 3 hrs _Prerequisite: HRM289 and HRM268

## HRM 430 - Seminar in Hospitality Management

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. __Credit Hours: 3 hrs _Prerequisite: senior hospitality management major

## HRM 441 - Commercial Purchasing

Study of principles and techniques applicable to purchasing with emphasis on selection and specification requirements for food, supplies, equipment and contract services. __Credit Hours: 3 hrs _Corequisites: HRM180 and HRM340

## HRM 450 - Meetings and Events Management

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. __Credit Hours: 3 hrs _Prerequisite: HRM180, HRM21, and senior standing

## HRM 460 - Advanced Foodservice Management

Evaluation of recent trends in the foodservice management including systems, food and equipment innovations and operational issues will be covered. Students will have the opportunity to apply knowledge and skills gained through previous courses and work experiences in a foodservice operations project. __Credit Hours: 3 hrs _Prerequisite: HRM251 and hotel and restaurant majors and minors only

## HRM 465 - Advance Topics in Hospitality Management

This course is designed to acquaint the student with the major trends and other current issues of concern to the hospitality management professional. Issues pertaining to the identification and analysis of events, trends and forces arising from the external environment will be explored, integrated and applied to the hospitality context. __Credit Hours: 3 hrs _Prerequisite: HRM268 and hotel and restaurant majors and minors only

## HRM 470 - Hospitality Industry Marketing

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. __Credit Hours: 3 hrs

HRM 475 - International Hospitality Management

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. __Credit Hours: 3 hrs _Prerequisite: HRM470

## HRM 477 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## HRM 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## HRM 479 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## HRM 480 - Gaming and Casino Management

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. __Credit Hours: 3 hrs

## HRM 496 - Strategies in Hospitality Management

Strategies for assessing, planning, implementation, evaluation and training in hospitality operations will be addressed. __Credit Hours: 3 hrs _Prerequisite: senior hospitality management major, HRM410 and HRM470

## HRM 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr
_Prerequisite: department permission

## HRM 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## HRM 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## HSEM 255 - Emergency Preparedness Planning

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. __Credit Hours: 3 hrs

## HSEM 306 - Issues in Emergency Preparedness

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. __Credit Hours: 3 hrs _Prerequisite: SSC255 or department permission

## HSEM 309 - Natural Hazard Mitigation

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.
Credit Hours: 3 hrs _Prerequisite: SSC255
or department permission

## HSEM 380 - Planning and DecisionMaking for Public Safety

Planning and decision-making is central to the command officer's role. This course provides the foundation for the planning and decisions that must be made relevant to every aspect of administering an agency. The KSA's acquired will assist the student as they approach the topics in human resource management, administration of the agency and homeland security. _Credit Hours: 3 hrs

## HSEM 381 - Public Relations and Public Safety

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. __Credit Hours: 3 hrs

## HSEM 412 - Administration of Public Safety Agencies

This course addresses the management and administrative duties associated with administering a public safety agency. Topics include community relations, budgeting, employee wellness, line of duty deaths, labor law and legal issues, consolidation of services and negotiation of labor contracts are addressed from a management perspective. __Credit Hours: 3 hrs

## HSEM 433 - Arson Investigation

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 35 mm camera, safety shoes, gloves and hard hat. __Credit Hours: 3 hrs _Prerequisite: CHEM117/118 or PHY221

## HSEM 434 - Hazardous Materials

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 Credit Hours: 3 hrs _Prerequisite:
CHEM117/118 or PHY221

## HSEM 435 - Incident Command

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.
Credit Hours: 3 hrs _Prerequisite:
PLSC450 or department permission

## HSEM 438 - Human Resource Management for Public Safety Agencies

Human Resource Management includes the process of recruiting, assessing, selecting, and promotion of employees. This course examines the staffing process and provides participants with tactics to ensure the highest qualified candidate is selected and managed. The course addresses employment law, Assessment Centers, as well as traditional interviewing and testing. __Credit Hours: 3 hrs _Prerequisite: PLSC334 or department permission

## HSEM 439 - Managing Critical Incidents for Homeland Security

This course applies current Homeland Security Policies in budgeting and management. The student will also apply critical decision making in crisis situations. A table top exercise will provid a capstone experience for application of concepts taught. __Credit Hours: 3 hrs

## HSEM 452 - Current Trends in Emergency Management

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. __Credit Hours: 3 hrs _Prerequisite: SSC255

## HSEM 453 - Management/Leadership for Public Safety

This course addresses the various styles of leadership theories and an 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. __Credit Hours: 3 hrs _Prerequisite: HSEM380 _Notes: Equivalent to PLSC450.

## HSEM 454 - Managing Technology for Public Safety Agencies

This course applies IT function and electronic research into acomplishing organizational objectives in a Public Safety Agency. The student will distinguish between reliable and questionable sources of information. Managing and controlling of the IT function. __Credit Hours: 3 hrs _Prerequisite: HSEM 453 _Notes: Equivalent to PLSC451.

## HSEM 475 - Managing Correctional Agencies and Facilities

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. __Credit Hours: 3 hrs _Prerequisite: PLSC450 or department permission

## IA 103 - Information Security Overview

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.
__Credit Hours: 3 hrs

## IA 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IA 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## IA 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## IA 202 - Risk-Vulnerability Analysis

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. __Credit Hours: 3 hrs

## IA 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IA 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## IA 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## IA 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1hr _Prerequisite: department permission

## IA 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2hrs

## IA 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3hrs _Prerequisite: department permission

## IA 325-Cyber Crime Investigation I

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. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## IA 326 - Cyber Crime Investigation II

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. __Credit Hours: 3 hrs _Prerequisite: IA325 Cyber crime Investigation I

## IA 327 - Computer Forensics I

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. __Credit Hours: 3 hrs _Prerequisite: IA325, junior standing

## IA 328 - Computer Forensics II

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. __Credit Hours: 3 hrs _Prerequisite: IA327, sophomore standing

## IA 329 - Policy Development in

## Information Assurance

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.
__Credit Hours: 3 hrs _Prerequisite:
sophomore standing

## IA 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IA 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2hrs _Prerequisite: department permission

## IA 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## IA 387-Cooperative Education

Credit Hours: 3 hrs

## IA 415 - Introduction to Research in Information Assurance

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 IA416.
_Credit Hours: 3 hrs _Prerequisite: STS300, all IA foundation courses and at least 15 hours in concentration _Cross-Listed: This course is cross-listed with NITA415.

## IA 416 - Applied Research Project

Students will conduct and write results of the research study proposed in IA415, 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.
__Credit Hours: 3 hrs _Prerequisite: IA415
_Cross-Listed: This course is cross-listed with NITA416.

## IA 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## IA 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2hrs _Prerequisite: department permission

## IA 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## IA 487 - Cooperative Education

Credit Hours: 3 hrs

## IA 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1hr _Prerequisite: department permission

## IA 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2hrs
_Prerequisite: department permission

## IA 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## IB 210 - Fundamentals of Global Business

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. __Credit Hours: 3 hrs

## IB 277 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IB 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IB 279 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IB 370 - International Business Ethics

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. __Credit Hours: 1.5 hrs _Concurrent Prerequisite: IB375 _Notes: Note: IB370 must be taken in conjunction with a section of IB375. Taken together, the two sections will total 3 credit hours

## IB 375 - Doing Business in Countries/Regions

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 _Credit Hours: 1.5 hrs _Prerequisite: IB210 or permission from the IB director _Concurrent Prerequisite: IB370 or IB375 _Notes: 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.

## IB 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IB 378 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IB 379-Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IB 475 - International Business: Study Abroad Perspective

This course is a rigorous course of study taught by faculty at a non-US campus at host universities and led by an EMU faculty member. The course will address the business and cross-cultural issues in the country or countries in which the course take place.
__Credit Hours: 3 hrs _Prerequisite:
International Business majors or department permission

## IB 477 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr
_Prerequisite: department permission

## IB 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IB 479 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. _Credit Hours: 3 hrs _Prerequisite: department permission

## IB 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## IB 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## IB 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## ID 140 - Introduction to Wholesale Distribution

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. __Credit Hours: 3 hrs

## ID 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## ID 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ID 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ID 240 - Profit Strategies in Distribution

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. Credit Hours: 3 hrs

## ID 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ID 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## ID 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ID 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## ID 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## ID 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## ID 340 - Relationships in Wholesaling

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).
__Credit Hours: 3 hrs

## ID 345 - Industrial Direct Response

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. __Credit Hours: 3 hrs

## ID 346 - Industrial Climate

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. __Credit Hours: 3 hrs

## ID 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## ID 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ID 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ID 387 - Co-operative Education

Credit Hours: 3 hrs

## ID 391 - Wholesale Account Development

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. __Credit Hours: 3 hrs

## ID 440 - Inventory Strategies in Distribution

An examination of the wholesale inventory management problem. The interrelationship between physical inventory, profitability and customer service will be explored. __Credit Hours: 3 hrs

## ID 444 - Quality Planning in Distribution

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. Credit Hours: 3 hrs

## ID 448 - Wholesale Policy and Distribution

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. __Credit Hours: 3 hrs

## ID 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ID 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours:
2 hrs _Prerequisite: department permission

## ID 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3hrs _Prerequisite: department permission

## ID 487 - Co-operative Education

Credit Hours: 3 hrs

Advanced study on an individual basis in areas in which the department does not offer a formal course. Credit Hours: 1hr
_Prerequisite: department permission

## ID 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2hrs
_Prerequisite: department permission

## ID 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. Credit Hours: 3 hrs
_Prerequisite: department permission

## IDE 110 - Interior Design Studio I

Introduction to technical drawing techniques, interior construction processes and construction materials used in interior design. Emphasis on basic architectural drafting skills and conventions as applied to wood frame construction. _Credit Hours: 3 hrs

## IDE 111 - Human Factors and Universal Design

Introduction to human factors and Universal Design precepts as the foundation for the design of interior environments. Emphasis: Exploration of Universal Design precepts (i.e., consideration of everyone's need who uses the interior environment, irrespective of age, physical stature, or current ability/disability) and human factors, including anthropometrics and ergonomics, as they impact the design of interior spaces. __Credit Hours: 3 hrs

## IDE 120 - Interior Design Studio II

Development of interior design graphic presentation skills. Emphasis on quick sketched, 1 and 2 points perspectives and rendering techniques. __Credit Hours: 3 hrs Prerequisite: interior design students only; IDE110

## Components

Investigation of characteristics, properties, and uses of materials and components specified by the interior designer. Emphasis: Life cycle analysis of interior finishes, furnishings and equipment (FF\&E) with discussion of relevant environmentally responsible design considerations. __Credit Hours: 3 hrs

## IDE 122 - Interior Design Theory II

Introduction to environment and behavior and psychosocial theories as they apply to the design of interior environments. Emphasis: Environment and behavior and psychosocial theories, as relevant to environmentally responsible design, as a platform for exploration of environmentally responsible design in interior design practices. __Credit Hours: 3 hrs

## IDE 123 - Computers for Interior Design I

Introduction to the use of computers in interior design. Emphasis: two-dimensional computer-aided drafting and threedimensional modeling. __Credit Hours: 3 hrs _Prerequisite: IDE110

## IDE 131 - Interior Design Theory I

Introduction to design theories as the foundation for planning interior environments. Emphasis: Discussion and exploration of relevant design theories including environment and behavior, design composition, spatial relationships and principles and elements of design. __Credit Hours: 3 hrs

## IDE 177 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IDE 178 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IDE 179 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IDE 208 - Introduction to Basic Design

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
__Credit Hours: 3 hrs _Notes: Non-majors only.

## IDE 210 - Interior Design Studio III

Introduction to the design process used in the interior design profession. Emphasis: Programming, ideation, concept development, space planning, design development and documentation, and presentation of design projects. __Credit Hours: 3 hrs _Prerequisite: IDE110, IDE120, and IDE123

## IDE 219 - Computers for Interior Design II

Advanced computer-aided design techniques for multimedia presentations. Emphasis: Three-dimensional modeling, interior design graphics, presentation of interior design projects and the parametric design system.
__Credit Hours: 3 hrs _Prerequisite: IDE123

## IDE 220 - Interior Design Studio IV

Engagement in creative problem solving using the design process to integrate both physiological and socio-psychological user needs with the functional and aesthetic design of an interior environment; analysis, synthesis and presentation of threedimensional solutions to a beginning-level, small scale, non-residential design problem. __Credit Hours: 3 hrs _Prerequisite: IDE210 and IDE219

Introduction to acoustics, noise control, climate control, plumbing and electrical systems. Emphasis: Investigation of building systems to enable interior designers to work within the parameters dictated by these systems and to communicate effectively with the subcontractors who design and install these systems. __Credit Hours: 3 hrs

## IDE 222 - History of Interiors

Chronological survey of interior design from ancient times through the present. Emphasis on design, function, construction and evolution of interior environments and the sociological, psychological and cultural factors that influence interior environments. __Credit Hours: 3 hrs

## IDE 277-Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IDE 278 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IDE 279 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IDE 310 - Interior Design Studio V

Engagement in creative problem solving using the design process to integrate both physiological and socio-psychological user needs with the functional and aesthetic design of the interior environment through analysis, synthesis and presentation of threedimentional solution to an intermediate-level, medium scale design problem. __Credit Hours: 3 hrs _Prerequisite: IDE220

## Designers

Introduction to lighting design for interior environments. Emphasis on lighting design fundamentals, the lighting design process, light sources and energy conservation. Application: Retail lighting design. __Credit Hours: 3 hrs _Prerequisite: IDE121 and IDE131

## IDE 318 - Interior Building Codes and ADA

Examination of the codes and laws relevant to the design of the interior environment with in-depth analysis of ADA as it relates to interior designers. Emphasis is implementation of the code check process and ADA compliance evaluations. __Credit Hours: 3 hrs _Prerequisite: IDE121 and IDE131

## IDE 320 - Interior Design Studio VI

Engagement in creative problem solving using the design process to integrate both physiological and socio-psychological user needs with the functional and aesthetic design of the interior environment through analysis, synthesis, and presentation of a threedimensional solution to an intermediate-level, medium scale, non-residential design problem. __Credit Hours: 3 hrs _Prerequisite: IDE310

## IDE 322 - Office Design, Spaceplanning and Specification

Feasibility studies, space planning and specification of office environments. Emphasis on research based design of the full range of closed, open and shared/team office spaces and the integration of the interior space planning with the building's electrical, plumbing, mechanical, acoustical, security, fire suppression and lighting systems.
__Credit Hours: 3 hrs _Prerequisite: IDE121, IDE123 and IDE131

## IDE 323 - Internship in Interior Design Preparation

Development of communication tools required for interior design internship placement. Emphasis: Preparation of portfolio and resume, and development of

IDE 221 - Environmental Systems for Interior Designers

IDE 317 - Lighting Systems for Interior
interviewing techniques. __Credit Hours: 3
hrs _Prerequisite: IDE310
_Prerequisite/Corequisite: IDE320 and IDE322

## IDE 377 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IDE 378 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IDE 379 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IDE 410 - Interior Design Studio VII

Engagement in creative problem solving and critical thinking, using the design process to integrate both physiological and sociopsychological user needs with the functional and aesthetic design of the interior environment through analysis, synthesis and presentation of a three-dimensional solution to an advanced-level, large scale, nonresidential design problem. Emphasis: Mixed-use design project in an adaptive reuse of a mid or high-rise building. __Credit Hours: 3 hrs _Prerequisite: IDE320

## IDE 411 - Internship in Interior Design

Supervised work experience in the interior design profession (120 hours). Emphasis: Opportunity to work with an NCIDQ certificate holder to observe and participate in the day-to-day operations of the firm to gain a better understanding of professional practice in that particular design domain.
__Credit Hours: 3 hrs _Prerequisite: IDE323

Engagement in creative problem solving and critical thinking, using the design process to integrate both physiological and sociopsychological user needs with the functional and aesthetic design of the interior environment through analysis, synthesis and presentation of a three-dimensional solution to an advanced-level, large scale, nonresidential design problem. __Credit Hours: 3 hrs _Prerequisite: IDE410

## IDE 422 - Professional Practice in Interior Design

Examination of business principles and practices as implemented in the interior design profession. Emphasis: Business organizational types, marketing interior design services, managing interior design firms, managing interior design projects, writing performance specifications, the bidding process and liability concerns.
__Credit Hours: 3 hrs

## IDE 477-Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 1 hr _Prerequisite: department permission

## IDE 478 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## IDE 479 - Special Topics

An experimental course designed to investigate specific topics of concern in specialization areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## IDE 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## IDE 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## IDE 503 - Physical Environments for Aging

The course will explore the interrelationship between the physical and psychosocial changes that occur with normal aging and the designed environment. Environmental assessments and recommendations to accommodate normal aging and the related physical impairments will be addressed. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## IHHS 110 - Rediscovering Your Creativity

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 __Credit Hours: 1hr _CrossListed: This course is cross-listed with RECR110

## IHHS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## IHHS 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 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. Credit Hours: 3 hrs

## IHHS 226 - Computers for Health and Human Services

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. Credit Hours: 3 hrs

## IHHS 260 - Aging to Infancy: A Life Course Retrospective

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. _Credit Hours: 3 hrs

## IHHS 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IHHS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## IHHS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 3 hrs _Prerequisite: department permission

## IHHS 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IHHS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## IHHS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## IHHS 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IHHS 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## IHHS 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hr _Prerequisite: department permission

## IHHS 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer
a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## IHHS 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 2 hrs
_Prerequisite: department permission

## IHHS 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 3 hrs
_Prerequisite: department permission

## IS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 2 hrs _Prerequisite: department permission

## IS 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## IS 215 - End-User Computing

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. __Credit Hours: 3 hrs

## IS 219 - File Processing and COBOL Programming

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. __Credit Hours: 3 hrs

## IS 247 - Introduction to Web Application Development

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. __Credit Hours: 3 hrs

## IS 277-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## IS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours:

3 hrs _Prerequisite: department permission

## IS 280 - Introduction to Expert Systems in Business

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. __Credit Hours: 3 hrs _Prerequisite: IS215

## IS 315-Object-Oriented Application Development

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.
__Credit Hours: 3 hrs _Prerequisite: IS247

## IS 320 - Business Data Communications and Computer Networks

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 organizational telecommunication networks as well as management and control of internet servers and mobile systems. __Credit Hours: 3 hrs _Prerequisite: IS215

## IS 350 - Enterprise Resource Planning

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. __Credit Hours: 3 hrs _Prerequisite: IS215

## IS 375 - Advanced Software Design and Programming

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.
__Credit Hours: 3 hrs _Prerequisite: IS315

## IS 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hr _Prerequisite: department permission

## IS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## IS 380 - Introduction to Databases

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. _Credit Hours: 3 hrs _Prerequisite: IS215

## IS 387-Cooperative Education in Information Systems

Four months of full-time employment at a business or public organization to impart practical experience in computer information systems disciplines. __Credit Hours: 3 hrs _Prerequisite: completion of three hours in computer information systems area and department permission _Notes: Admittance by application only Offered on a credit/nocredit basis for general elective credit only

## IS 410 - Business Intelligence

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. __Credit
Hours: 3 hrs _Prerequisite: IS380 or IS215 and department permission

## IS 413 - Information Technology Infrastructure and Security

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.
__Credit Hours: 3 hrs _Prerequisite: IS320

## IS 416 - System Software Administration

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. __Credit Hours: 3 hrs _Prerequisite: IS247 and IS320

## IS 417 - Systems Analysis and Design

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. __Credit Hours: 3 hrs _Prerequisite: IS315

## IS 421 - Enterprise Database Application

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 __Credit Hours: 3 hrs _Prerequisite: IS247 and IS380

## IS 425 - Information Systems Project Management

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. __Credit Hours: 3 hrs _Prerequisite: IS215

## IS 426 - Advanced Structured COBOL Programming

Students work in teams developing integrated information systems in structured COBOL.

Searches, reporting, subprograms, random files, indexed sequential files, various sorting routines, debugging techniques, programming style, optimization techniques, structured and modular programming concepts, transferability and portability strategies, and documentation, including writing program specifications and users' manuals. _Credit Hours: 3 hrs _Prerequisite: IS417

## IS 442 - Information Resource Management

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.
__Credit Hours: 3 hrs _Prerequisite: nine
hours of IS courses, not including IS215

## IS 449 - Information Systems Integration

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. __Credit Hours: 3 hrs _Prerequisite: IS413, IS417 and IS421

## IS 449W - Information Systems Integration

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: IS413, IS417 and IS421

## IS 477 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## IS 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## IS 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## IS 487-Cooperative Education in Information Systems

Four months of full-time employment at a business or public organization to impart a practical experience in computer information systems disciplines. __Credit Hours: 3 hrs _Prerequisite: IS387 and department permission _Notes: Admittance by application only

## IS 489 - Internship

Directed full-time work experience in the business computer systems units of a business organization. __Credit Hours: 3 hrs _Prerequisite: major and department permission _Notes: This course may be repeated for a maximum of six hours.

## IS 497 - Independent Study

Directed study of a problem or group of problems in production systems or management science. __Credit Hours: 1 hr _Prerequisite: department permission

## IS 498 - Independent Study

Directed study of a problem or group of problems in production systems or management science. __Credit Hours: 2 hrs _Prerequisite: department permission

## IS 499 - Independent Study

Directed study of a problem or group of problems in production systems or management science. __Credit Hours: 3 hrs _Prerequisite: department permission

## IS 510 - Introduction to Object-Oriented Programming

In this course, you gain a solid foundation in object-oriented and component-based development, positioning you to move seamlessly into the strategic application of these technologies including tools, languages and methodologies to meet your business needs. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## ISEC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ISEC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ISEC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## ISEC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ISEC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## ISEC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## ISEC 285 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1hrs _Prerequisite: department permission

## ISEC 286 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2hrs _Prerequisite: department permission

## ISEC 287 - Preprofessional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## ISEC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## ISEC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ISEC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## ISEC 387 - Cooperative Education

Credit Hours: 3 hrs

## ISEC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## ISEC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## ISEC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## ISEC 487 - Cooperative Education

Credit Hours: 3 hrs

## ISEC 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## ISEC 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2hrs _Prerequisite: department permission

## ISEC 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3hrs _Prerequisite: department permission

## JPNE 121 - Beginning Japanese I

Practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. __Credit Hours: 5 hrs

## JPNE 122 - Beginning Japanese II

Instruction includes practice in elementary conversation with special attention to reading and writing the two Japanese syllabaries and basic ideographs. _Credit Hours: 5 hrs _Prerequisite: JPNE121 or department permission

## JPNE 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## JPNE 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## JPNE 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## JPNE 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## JPNE 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## JPNE 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## JPNE 211 - Intermediate Japanese I

Practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. __Credit Hours: 5 hrs _Prerequisite: JPNE122 or department permission

## JPNE 212 - Intermediate Japanese II

Instruction includes practice in intermediate Japanese conversation, with heavy emphasis on reading and writing common ideographs in nontechnical text. __Credit Hours: 5 hrs _Prerequisite: JPNE211 or by placement examination

## JPNE 261 - Introduction to Professional Language Study

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. __Credit Hours: 3 hrs _Prerequisite: JPNE212 or department permission

## JPNE 343 - Japanese Composition

Writing for a variety of purposes and a
review of kanji (ideographs) and grammar constitute the core of the course. Frequent written assignments. __Credit Hours: 3 hrs _Prerequisite: JPNE212 or department permission

## JPNE 344 - Japanese Conversation

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.
Credit Hours: 3 hrs _Prerequisite:
JPNE212 or department permission

## JPNE 344W - Japanese Conversation and Composition

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite:
JPNE212 or department permission $\qquad$

## JPNE 361 - Japanese for International Trade

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. __Credit Hours: 3 hrs _Prerequisite: JPNE344 or department permission

## JPNE 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## JPNE 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## JPNE 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
3 hrs _Prerequisite: department permission

## JPNE 444 - Advanced Japanese Conversation

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. __Credit Hours: 3 hrs _Prerequisite: JPNE344 or department permission

## JPNE 445 - Survey of Japanese Literature

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. __Credit Hours: 3 hrs _Prerequisite: JPNE444 or department permission

## JPNE 446 - Business Japanese I

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. __Credit Hours: 3 hrs _Prerequisite: JPNE361 or department permission

## JPNE 447 - Business Japanese II

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 in Japanese.
__Credit Hours: 3 hrs _Prerequisite:
JPNE446 or department permission

## JPNE 448 - Readings on Japanese Culture

This is a course of study designed to introduce contemporary Japanese culture and
civilization through reading. __Credit Hours: 3 hrs _Prerequisite: JPNE444 or department permission

## JPNE 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## JPNE 478-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## JPNE 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## JPNE 490 - Intensive Japanese Abroad

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 __Credit Hours: 6 hrs _Notes: In Japanese.

## JPNE 494 - Seminar in Japanese Studies

Required of students majoring in teaching Japanese language and culture. Extensive study and discussion of issues related to Japanese society and to language structures. Students are required to apply Japanese language skills in research, presentations and papers. __Credit Hours: 3 hrs _Prerequisite: JPNE446 or department permission

## JPNE 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## JPNE 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## JPNE 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## JRNL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr _Prerequisite: department permission

## JRNL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs _Prerequisite: department permission

## JRNL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs _Prerequisite: department permission

## JRNL 201 - Public Relations and Public Responsibility

An examination of professional responsibility in the context of public relations and business theory and practices. Throughout this course, students will examine various ethical questions and issues as they draw on a wide variety of sources including social science and management theories and models.
__Credit Hours: 3 hrs

JRNL 213 - Introduction to Journalism

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. __Credit Hours: 3 hrs

## JRNL 215 - News Writing and Reporting

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 __Credit Hours: 3 hrs

## JRNL 277 - Special Topics

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.
_Credit Hours: 1 hr _Prerequisite:
sophomore standing

## JRNL 278 - Special Topics

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.
_Credit Hours: 2 hrs _Prerequisite:
sophomore standing

## JRNL 279 - Special Topics

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.
Credit Hours: 3 hrs _Prerequisite:
sophomore standing

## JRNL 305 - Editorial, Column, and Review Writing

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 __Credit Hours: 3 hrs _Prerequisite: JRNL215

## JRNL 306 - Feature Writing

Writing of feature and interpretive articles for newspapers and magazines. Emphasis is on idea generation, research, interviewing, narrative technique and organization of longer articles. __Credit Hours: 3 hrs _Prerequisite: JRNL215

## JRNL 306W - Feature Writing

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. _Click here for course description. $\qquad$ Credits: 3 hrs $\qquad$

## JRNL 307 - Copy Editing

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.

Credit Hours: 3 hrs _Prerequisite:
JRNL215

## JRNL 309 - Sports Writing

A sports writing and reporting course that introduces students to the theory and practice of covering athletic events and sports controversies, interviewing players and coaches and writing under deadline pressure.
__Credit Hours: 3 hrs _Prerequisite: JRNL215

## JRNL 310 - Digital Journalism

This course focuses on the recent history and current theories relevant to the digital news environment and the development of effective writing and reporting practices. Students also learn to use and enjoy technical tools and develop a dynamic understanding of the rhetorical, technical and aesthetic conventions of digital media. __Credit Hours: 3 hrs _Prerequisite: JRNL213 and JRNL215

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. __Credit Hours: 3 hrs _Prerequisite: JRNL215

## JRNL 312 - Introduction to Public Relations

Definition, historic aspects, evolution and ethics of public relations; the practical use of public relations by corporations, not-forprofit organizations, businesses, institutions and government; correlation of written, oral and visual skills. _Credit Hours: 3 hrs _Prerequisite: JRNL215 and CTAS124

## JRNL 313 - History of American Journalism

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 __Credit Hours: 3 hrs
_Prerequisite: sophomore standing

## JRNL 314 - Writing for Public Relations

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 __Credit Hours: 3 hrs _Prerequisite: JRNL312

## JRNL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## JRNL 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## JRNL 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## JRNL 387 - Cooperative Education in Journalism/Public Relations

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. __Credit Hours: 3 hrs _Prerequisite: junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor.

## JRNL 408 - Case Studies in Public Relations

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 __Credit Hours: 3 hrs _Prerequisite: JRNL314

## JRNL 408W - Case Studies in Public Relations

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for course description. __Credits: 3 hrs

## JRNL 423 - Magazine Article Writing

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. _Credit Hours: 3 hrs _Prerequisite: ENGL328 or JRNL306

## JRNL 453 - Advanced Reporting

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. __Credit Hours: 3 hrs _Prerequisite: JRNL215

## JRNL 454 - Contemporary Problems in Journalism

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. Credit Hours: 3 hrs _Prerequisite: junior standing

## JRNL 455 - Journalism Law and Ethics

An advanced professional course exploring legal and ethical issues surrounding journalism. Topics will include defamation of character, invasion of privacy, copyright, conflicts between the press and the courts, hate speech, obscenity, access to government records, broadcast regulations and various forms of censorship, as well as conflicts of interest, fairness and professional conduct.
__Credit Hours: 3 hrs _Prerequisite: senior standing

## JRNL 477 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite: junior
standing and department permission

## JRNL 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: junior

## JRNL 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: junior standing and department permission

## JRNL 487 - Cooperative Education in Journalism/Public Relations

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. __Credit Hours: 3 hrs
_Prerequisite: junior or senior standing; admittance by application to the Cooperative Education Office and recommendation approved by a journalism professor

## JRNL 488 - Internship in <br> Journalism/Public Relations

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. __Credit Hours: 1 hr _Prerequisite: junior or senior standing and recommendation of journalism professor

## JRNL 489 - Internship in Journalism/Public Relations

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. __Credit Hours: 2 hrs _Prerequisite: junior or senior standing and recommendation of journalism professor

## JRNL 490 - Internship in Journalism/Public Relations

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. __Credit Hours: 3 hrs _Prerequisite: junior or senior standing and recommendation of journalism professor

## JRNL 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: nine hours in the appropriate major or minor

## JRNL 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: nine hours in the appropriate major or minor

## JRNL 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: nine hours in the appropriate major or minor

## LATN 101 - Beginning Latin I

This course introduces students to the basic vocabulary, grammar, and syntax of the Latin language with a view to the reading of
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## LATN 102 - Beginning Latin II

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. _Credit Hours: 3 hrs _Prerequisite: LATN101

## LATN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## LATN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LATN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LATN 201 - Intermediate Latin I

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. __Credit Hours: 3 hrs _Prerequisite: LATN102

## LATN 202 - Intermediate Latin II

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. __Credit Hours: 3 hrs _Prerequisite:

## LATN201

## LATN 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## LATN 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LATN 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LATN 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## LATN 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LATN 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## LATN 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LATN 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LATN 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## LATN 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## LATN 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## LAW 293 - Legal Environment of Business

The judicial system and legal procedure, crimes and torts, contractual arrangements, sales of goods and other transactions under the Uniform Commercial Code. __Credit Hours: 3 hrs

The performance of research on several actual legal problems. __Credit Hours: 3 hrs _Prerequisite: LAW293

## LAW 350 - International Business Law

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. __Credit Hours: 3 hrs

## LAW 393 - Law of Business Enterprises

The law of forms of business enterprise and negotiable instruments. Agency, partnerships, corporations and negotiable instruments.
Credit Hours: 3 hrs _Prerequisite:
LAW293 or department permission

## LAW 403-Employment Law

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. __Credit Hours: 3 hrs

## LAW 411 - Sports Law

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. __Credit Hours: 3 hrs

## LATN 477 - Special Topics

## LAW 295-Legal Research

## LAW 425-E-Commerce Law

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. __Credit Hours: 3 hrs
_Prerequisite: junior standing

## LAW 430 - Ethics and Legal Compliance

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.
__Credit Hours: 3 hrs

## LAW 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: LAW293

## LAW 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: LAW293

## LAW 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: LAW293

## LAW 497 - Independent Study

Directed study of a problem in business law not otherwise treated in department courses. __Credit Hours: 1 hr _Prerequisite: department permission

## LAW 498 - Independent Study

Directed study of a problem in business law not otherwise treated in department courses.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## LAW 499 - Independent Study

Directed study of a problem in business law not otherwise treated in department courses. __Credit Hours: 3 hrs _Prerequisite: department permission

## LAW 503 - Legal Environment of Business

This course covers topics in business law, ethics and the law of enterprises. Material includes the substantive law of contracts and torts, agency and enterprise formation, including limited liability companies, corporations and securities laws. Business ethics are taught from a legal perspective. __Credit Hours: 3 hrs

## LEGL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## LEGL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## LEGL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## LEGL 211 - Introduction to Paralegalism and Legal Terminology

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 __Credit Hours: 3 hrs _Notes: A minimum grade of "B-" is required if taken towards the Legal Assistant (Paralegal) Program.

## LEGL 212 - Law Office Administration and Technology

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 conflictchecking, 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 __Credit Hours: 3 hrs _Prerequisite: BMMT201 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## LEGL 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## LEGL 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## LEGL 304 - Legal Writing, Research and Analysis I

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.. __Credit Hours: 3 hrs _Prerequisite: ENGL121 and BMMT123 (majors only) _Notes: A minimum grade of " $\mathrm{C}+$ " is required if taken towards the Legal Assistant (Paralegal) Program

## LEGL 304W - Legal Writing, Research and Analysis I

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite:
ENGL121 and BMMT123 (majors only)
_Notes: A minimum grade of "C+" is
required if taken towards the Legal Assistant (Paralegal) Program

## LEGL 305 - Advanced Legal Writing, Research and Analysis II

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. __Credit Hours: 3 hrs _Prerequisite: BMMT201 or equivalent; ENGL121; LEGL304 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 306 - Advanced Legal Writing, Research and Analysis III

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 __Credit Hours: 3 hrs _Prerequisite: LEGL304 and LEGL305 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 311 - Probate, Estates and Wills

The student will study the probate code and probate procedures, descendents' estates, death and inheritance taxes, and other related problems. Special attention will be given to wills and how wills are drafted __Credit Hours: 3 hrs _Prerequisite: LEGL211 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 313 - Family Law

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..
__Credit Hours: 3 hrs _Prerequisite:
LEGL211 _Notes: Restricted to Legal
Assistant (Paralegal) majors only. A
minimum grade of " C " is required.

## LEGL 315 - Land Transaction and Real Estate for Paralegals

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-tenet relationship in leasing real property. __Credit Hours: 3 hrs
_Prerequisite: LEGL211 or LAW293,
sophomore standing

## LEGL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## LEGL 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## LEGL 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## LEGL 404 - Court Rules, Forms and Drafting Contracts

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. __Credit Hours: 3 hrs _Prerequisite:
LEGL304 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 405-Civil Litigation, Investigation and Procedure I

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.
Credit Hours: 3 hrs _Prerequisite:
LEGL404 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 406-Civil Litigation, Investigation and Procedure II

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. __Credit Hours: 3 hrs _Prerequisite: LEGL405 _Notes: Restricted to Legal Assistant (Paralegal) majors only. A minimum grade of " C " is required.

## LEGL 413 - The Law and the Internet

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. __Credit Hours: 3 hrs

## LEGL 414 - Legal Assistance Center Clinical Experience

Student work at the Washtenaw CountyEastern 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 engage in activities that constitute the unauthorized practice of law. __Credit Hours: 3 hrs _Prerequisite: LEGL211/304/404 and department permission _Concurrent Prerequisite: LEGL311/313/405 _Notes: Restricted to Legal Assistant (Paralegal) majors only.

## LEGL 415 - Bankruptcy Law

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. __Credit Hours: 3 hrs _Prerequisite: LEGL304

## LEGL 416 - Legal Assistant Internship

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. __Credit Hours: 3-6 hrs _Prerequisite: LEGL211, LEGL304,

LEGL305, LEGL404, LEGL405 and permission of instructor; Must have completed required courses in the curriculum _Notes: 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.

## LEGL 477 - Special Topics

An exploration and study of topics not covered in other program offerings. Student may elect more than once. __Credit Hours: 1 hr

## LEGL 478 - Special Topics

An exploration and study of topics not covered in other program offerings. Student may elect more than once. __Credit Hours: 2hrs

## LEGL 479 - Special Topics

An exploration and study of topics not covered in other program offerings. Student may elect more than once. __Credit Hours: 3 hrs

## LEGL 497 - Independent Study

Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department. __Credit Hours: 1hr

## LEGL 498 - Independent Study

Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department. __Credit Hours: 2hrs

## LEGL 499 - Independent Study

Students pursue some special area of study or experimentation under the direction of a designated faculty member from the department. __Credit Hours: 3hrs

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## LING 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## LING 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

LING 201 - An Introduction to Linguistics
An introduction to phonology, morphology, syntax, the lexicon, semantics, sociolinguistics, psycholinguistics and other concerns. __Credit Hours: 3 hrs _Prerequisite: sophomore standing

## LING 205 - English Words

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.
__Credit Hours: 3 hrs

## LING 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## LING 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## LING 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## LING 310 - African American Language

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. __Credit Hours: 3 hrs _Prerequisite: LING201, or LNGE223 or AAS101

## LING 322 - Languages of the World

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. __Credit Hours: 3 hrs

## LING 340 - Language and Culture

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 __Credit Hours: 3 hrs _Prerequisite: ANTH135 or LING201 or LNGE223

## LING 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## LING 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## LING 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## LING 401 - Introduction to Linguistic Science

An introduction to linguistic theory and analytical procedures. Students will apply theoretical principles to problems of phonological and syntactic analysis. __Credit Hours: 3 hrs _Prerequisite: LING201 or LNGE223

## LING 402 - Modern English Grammar

An introduction to the grammar of modern English: problems in the description and analysis of English grammar __Credit Hours: 3 hrs _Prerequisite: junior standing

## LING 415 - Women and Language

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 morphology, gender differences in discourse styles and the question of whether gender-related language differences have neurological correlates or are exclusively social in origin. __Credit Hours: 3 hrs _Prerequisite: a 200-, 300- or 400-level LING course

## LING 420 - Introduction to Phonetics and Phonology

An introduction to articulatory and acoustic phonetics and to the basic principles and methodology of phonological analysis.
Credit Hours: 3 hrs _Prerequisite: LING401

## LING 421 - The History of the English Language

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. __Credit Hours: 3 hrs _Prerequisite: LING201 or LING401

## LING 425 - Introduction to Syntax

The development of a base in syntactic theory, learning both the mechanisms of a transformational grammar and the argumentation used in syntactic analysis. __Credit Hours: 3 hrs _Prerequisite: LING401

## LING 426 - Topics in Linguistics

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. __Credit Hours: 3 hrs _Prerequisite: a 200 -, 300 - or 400 -level LING course

## LING 434 - The Linguistic Analysis of Literature

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. __Credit Hours: 3 hrs _Prerequisite: a 200-, 300- or 400-level LING course

## LING 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## LING 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LING 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LING 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: nine hours in the appropriate major or minor

## LING 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: nine hours in the appropriate major or minor

## LING 499 - Independent Study

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. __Credit Hours: 3
hrs _Prerequisite: nine hours in the appropriate major or minor

## LITR 100 - Worlds on the Page: An Intro to LIT

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 __Credit Hours: 3 hrs

## LITR 101 - Imaginary Worlds: An Intro to Fiction

Reading and critical analysis of prose fiction intended to deepen the student's understanding and enjoyment of prose fiction __Credit Hours: 3 hrs

## LITR 102 - Metaphor Matters: An Intro to Poetry

Reading and critical analysis of poetry intended to deepen the student's understanding and enjoyment of poetry __Credit Hours: 3 hrs

## LITR 103 - All the World's a Stage: An Intro to Drama

Reading and critical analysis of drama intended to deepen the student's understanding and enjoyment of drama __Credit Hours: 3 hrs

## LITR 106 - Rome and America

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 __Credit Hours: 6 hrs _Cross-Listed: This course is crosslisted with CLAS106.

## LITR 150 - Humanity and Technology

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. __Credit Hours: 3 hrs _Notes: Note: see honors humanities courses.

## LITR 160 - African American Literature

This course introduces students to the study of African American literature, thought and cultural 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. __Credit Hours: 3 hrs

## LITR 161 - Native American Literature

A course in the oral and written literatures of Native American cultures - emphasizing memoirs, essays, fiction, poetry, drama and film of the 20th and 21 st 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. __Credit Hours: 3 hrs

## LITR 163 - Jewish-American Literature and Culture

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 more forward in the vibrant intellectual life of the 20th and 21st centuries. __Credit Hours: 3 hrs

## LITR 164 - Introduction to Asian American Literature

This course is designed to help students examine the experiences of Asian Americans in the U.S. as shown through prose and poetry. Course work is framed through
historical cultural backgrounds, the immigrant experience and current ideological perspectives of persons who self-identify as both Asian and American. Film screenings provide further context for study. _Credit Hours: 3 hrs

## LITR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## LITR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LITR 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LITR 181 - The Legacy of Greece

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.
__Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with CLAS181 _Notes: Note: see honors humanities courses.

## LITR 200 - Literary Studies for Literature Lovers

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. __Credit Hours: 3 hrs

## LITR 210 - Introduction to Shakespeare

An introduction to at least five of Shakespeare's plays with emphasis upon the tragedies __Credit Hours: 3 hrs

## LITR 241 - Global Perspectives in Postcolonial Narrative

A survey of fiction and film from around the world that elucidates the narrative structures in international fiction and film; illustrates how these structures influence the perception of other people and places; and demonstrates the ways in which narrative imagination promotes global awareness and cross-cultural understanding. _Credit Hours: 3 hrs

## LITR 251 - The Bible as Literature

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. _Credit Hours: 3 hrs _Prerequisite: one 100 - or 200level LITR course

## LITR 277 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: one 100or 200-level LITR course

## LITR 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: one 100or 200-level LITR course

## LITR 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: one 100or 200-level LITR course

## LITR 309 - The Development of American Literature

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 __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 310 - Modern American Literature

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 __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 312 - English Literature in the Middle Ages

A survey of Old and Middle English literature from Beowulf to Malory, tracing the themes, genres and literary techniques of early English literature __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 314 - English Renaissance Prose and Poetry 1500-1660

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.
__Credit Hours: 3 hrs
_Prerequisite/Corequisite: ENGL300

## LITR 315 - Restoration and 18th-Century Literature

A study of British literature from the Restoration of Charles II through the Enlightenment and French Revolution (16601798), including such authors as Behn, Defoe, Swift, Montagu, Equiano, Pope,

Fielding, Gray, Walpole, Burney, Goldsmith and Wollstonecraft __Credit Hours: 3 hrs
_Prerequisite/Corequisite: ENGL300

## LITR 316 - Romantic Rebellion in Britain 1798-1832

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. __Credit Hours: 3 hrs
_Prerequisite/Corequisite: ENGL300

## LITR 317 - Victorian and Edwardian

 Literature 1832-1914A study of prose and poetry of such authors as Carlyle, Mill, Tennyson, Browning, Ruskin, Arnold, Hopkins, Swinburne, Hardy, Pater, Wilde, Kipling and others. __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 360 - Recent Trends in British and American Literature

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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 361 - Studies in Native American Literature

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 21 st centuries. Students will become familiar with the historical, cultural and critical contexts for oral traditional and contemporary texts studied. __Credit Hours: 3 hrs _Prerequisite/Corequisite: ENGL300

## LITR 362 - Studies in African American Literature

This course will examine the development of the African American literary tradition from its beginnings as an oral and aural art to tests 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. __Credit Hours: 3 hrs
_Prerequisite/Corequisite: ENGL300

## LITR 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission
_Prerequisite/Corequisite: ENGL300

## LITR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission _Prerequisite/Corequisite: ENGL300

## LITR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission _Prerequisite/Corequisite: ENGL300

## LITR 400 - Narrative in Literature and Film

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 __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course, sophomore standing
plays. __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course, sophomore standing

## LITR 411 - Studies in Epic and Romance

A critical reading of foreign (in translation) and English epics and romances (and their sources). The treatment will be both historical and comparative. __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300level LITR course

## LITR 413 - The Poetry of Chaucer

An introduction to the major works of Chaucer: a close reading of representative poetry __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course

## LITR 420 - Studies in the British Novel

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 _Credit Hours: 3 hrs
_Prerequisite: ENGL300 and one 300-level LITR course

## LITR 421 - Studies in the American Novel

A study of the American novel from its beginnings in the 19th century to the present, with particular emphasis on its development over time __Credit Hours: 3 hrs
_Prerequisite: ENGL300 and one 300-level LITR course

## LITR 422 - Studies in the Novel in Global Perspective

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.
_Credit Hours: 3 hrs _Prerequisite:
ENGL300 and one 300-level LITR course

## LITR 430 - Studies in Drama

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 __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course

## LITR 440 - Genre Studies

A study of the characteristics of a particular literary genre, independent of chronology, theme or author. __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course

## LITR 443 - Women in Literature

A study of women and their experiences as described in literature __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course _Cross-Listed: This course is cross-listed WGST443

## LITR 450 - Major Authors

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 Credit Hours: 3 hrs _Prerequisite:
ENGL300 and one 300-level LITR course

Students may elect this course more than once, provided different topics are studied.
__Credit Hours: 2 hrs _Prerequisite:
ENGL300 and one 300-level LITR course

## LITR 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course

## LITR 480 - Studies in Literature and Culture

A seminar course devoted to theorizing and articulating the relationships between literature and culture __Credit Hours: 3 hrs _Prerequisite: ENGL300 and one 300-level LITR course

## LITR 490 - Senior Seminar

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. __Credit Hours: 3 hrs _Prerequisite: senior majors in literature or language, literature and writing. _ENGL300 and one 300-level LITR course, senior standing.

## LITR 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: nine hours in the appropriate major or minor. _ENGL300 and one 300level LITR course.

## LITR 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: nine hours in the appropriate major or minor; ENGL300 and one 300-level LITR course.

## LITR 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: nine hours in the appropriate major or minor; ENGL300 and one 300-level LITR course.

## LNGE 134 - Etymology

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. __Credit Hours: 3 hrs

## LNGE 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## LNGE 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LNGE 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LNGE 202-Grammar for ESL Teachers

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. __Credit Hours: 3 hrs

## LNGE 223 - Introduction to Language

The basic principles of linguistic structure as they apply to the western European languages taught in the department. __Credit Hours: 3 hrs

## LNGE 240 - Linguistic and Cultural

 Diversity in the U.S.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. __Credit Hours: 3 hrs

## LNGE 242 - Linguistic and Cultural Diversity: Global Englishes

Students will explore the nature of language and tis 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. __Credit Hours: 3 hrs

## LNGE 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## LNGE 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LNGE 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LNGE 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## LNGE 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## LNGE 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LNGE 425 - Second Language Acquisition

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. _Credit Hours: 3 hrs _Prerequisite: LNGE223 and LNGE202

## LNGE 477-Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## LNGE 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## LNGE 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## LNGE 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## LNGE 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## LNGE 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## MATH 097A - Pre-College Mathematical Concepts - Part I

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 Hours: 3 hrs _Prerequisite: program placement _Notes:
Credit for this course will not count toward graduation

MATH 097B - Pre-College Mathematical Concepts - Part II

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 Hours: 3 hrs _Prerequisite: MATH097A or program placement _Notes: Credit for this course will not count toward graduation.

## MATH 97 - Pre-College Mathematical Concepts

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 Hours: 5 hrs _Prerequisite: program placement _Notes: Credit for this course will not count toward graduation

## MATH 098A - Pre-College Introductory Algebra Concepts - Part I

The first part of a mastery-based developmental mathematics course designed to prepare students to succeed in a collegelevel 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 Hours: 3 hrs _Prerequisite: At least C in MATH097 or MATH097B or placement _Notes: Credit for this course will not count toward graduation.

## MATH 098B - Pre-College Introductory Algebra Concepts - Part II

The second part of a mastery-based developmental mathematics course designed to prepare students to succeed in a collegelevel 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 Hours: 3 hrs _Prerequisite: at least C in MATH098A or placement _Notes: Credit for this course will not count toward graduation

## MATH 98 - Pre-College Introductory Algebra Concepts

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 Hours: 5 hrs _Prerequisite: at least C in MATH097 or MATH097B or placement _Notes: Credit for this course will not count toward graduation.

## MATH 104 - Intermediate Algebra

A review of elementary algebra and a continuation into the study of functions, graphs and quadratic equations. __Credit Hours: 3 hrs _Prerequisite: placement or at least C in MATH098 or MATH098B

## MATH 105-College Algebra

A study of functions and their graphs, including polynomial, rational, exponential and logarithmic functions; inverse functions; equations and inequalities; and applications.
__Credit Hours: 3 hrs _Prerequisite:
placement or at least a C in MATH104

## MATH 107-Plane Trigonometry

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. __Credit Hours: 2 hrs _Prerequisite: placement or at least a C in MATH104 (B or better strongly recommended), or MATH105, MATH119 or MATH210

## MATH 108 - Problem Solving and Number Concepts for Elementary School Teachers

The course examines topics in the elementary school mathematics curriculum from an advanced standpoint, with an emphasis on conceptual understanding and problem solving. Topics include number theory, real number systems and their properties, alegbra concepts and functions. Required of all students in the elementary education
program. Open only to prospective elementary teachers. __Credit Hours: 3 hrs _Prerequisite: placement or at least a C in MATH098 or MATH098B, or MATH104, MATH105, MATH107, MATH110E or MATH118

## MATH 110 - Mathematical Reasoning

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. __Credit Hours: 3 hrs _Prerequisite: placement or at least C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH112 _Notes: 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

## MATH 110E - Mathematical Reasoning: Applications for Elementary School Teachers

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. __Credit Hours: 3 hrs _Prerequisite: Placement or at least a C in MATH098 or MATH098B, or MATH104, MATH105, MATH107, MATH108, or MATH1 18 and enrollment in Elementary Education Intent or Elementary Education or Special Education for Elementary

## MATH 112 - Topics in Precalculus Mathematics

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 __Credit Hours: 4 hrs _Prerequisite: placement or MATH105 _Notes: Some knowledge of trigonometry is assumed.

## MATH 118 - Linear Models and Probability

Linear models, systems of linear equations, linear regression, probability theory, probabilistic simulations, decision theory, descriptive statistics; combinatorics and/or financial models as time permits. __Credit Hours: 3 hrs _Prerequisite: placement or at least C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH120

## MATH 119 - Applied Calculus

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. __Credit Hours: 3 hrs _Prerequisite: placement or at least a C in MATH104 (B or better strongly recommended) or MATH105 or MATH210

## MATH 120-Calculus I

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. __Credit Hours: 4 hrs _Prerequisite: placement or at least a C in MATH105 and MATH107, or in MATH112, or in MATH210 and MATH107

## MATH 121 - Calculus II

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.
_Credit Hours: 4 hrs _Prerequisite: at least a $\overline{\mathrm{C}}$ in MATH120

Vectors and matrices, operations on matrices, determinants, systems of linear equations, linear independence, linear transformations, applications._Credit Hours: 3 hrs _Prerequisite: MATH105 with a minimum grade of C or MATH120 with a minimum grade of D- or MATH1 12 or placement

## MATH 130 - Calculus Laboratory I

Computer laboratory class designed to reinforce the major concepts of first-semester calculus. __Credit Hours: 1 hr _Concurrent Prerequisite: MATH120

## MATH 131 - Calculus Laboratory II

Computer laboratory class designed to reinforce the major concepts of secondsemester calculus. __Credit Hours: 1 hr _Concurrent Prerequisite: MATH121

## MATH 170 - Elementary Statistics

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. __Credit Hours: 3 hrs _Prerequisite: placement or at least a C in MATH098 or MATH098B or MATH104, MATH105, MATH107, MATH109 or MATH120

## MATH 177 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

## MATH 178 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite:
department permission

## MATH 179 - Special Topics

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## MATH 205-Mathematical Structures for Computer Science

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.

$$
\text { __Credit Hours: } 4 \text { hrs _Prerequisite: }
$$

MATH120

## MATH 210 - Algebra for Elementary/Middle School Teachers

Interpreting and applying graphical and algebraic representations of functions, including linear, polynomial, rational, exponential, and logarithmic functions. Connections to teaching algebra in grades K8 will also be examined. __Credit Hours: 3 hrs _Prerequisite: MATH108 and MATH110E _Notes: Only open to prospective elementary teachers.

## MATH 211 - Introduction to Mathematical Proof

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.
__Credit Hours: 3 hrs _Prerequisite:
MATH121 and MATH122

## MATH 223 - Multivariable Calculus

Vector products, lines and planes in threedimensional 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. Credit Hours: 4 hrs _Prerequisite: at least a C in MATH121 and MATH122

## MATH 233 - Calculus Laboratory III

Computer laboratory class designed to reinforce the major concepts of thirdsemester calculus. _Credit Hours: 1 hr _Concurrent Prerequisite: MATH223

## MATH 240 - Geometry for Elementary/Middle School Teachers

Informal geometry of the plane and space, congruence and measurement, elementary theorems and proof, and plane coordinate geometry __Credit Hours: 3 hrs
_Prerequisite: MATH108 and MATH110E
_Notes: Open only to prospective elementary teachers.

## MATH 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## MATH 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## MATH 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 3 hrs _Prerequisite: department permission

## MATH 301 - Advanced Topics in Elementary Mathematics

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. _Credit Hours: 3 hrs _Prerequisite: MATH108 and MATH110E; or MATH210; MATH240

## MATH 304 - Middle School Mathematics Methods and Content

Consideration of the mathematics program in middle school and junior high school, its organization and content, methods of teaching and learning. probation. __Credit Hours: 3 hrs Prerequisite: MATH240 or MATH120 _Notes: Not open to freshmen, sophomores or students on academic

## MATH 306 - Teaching Mathematics in Secondary School

Consideration of the mathematics program in the high school, its organization and content, methods of teaching and learning __Credit Hours: 3 hrs _Prerequisite: MATH120 and CURR305; admission to the teacher education program Notes: Not open to freshmen, sophomores or students on academic probation.

## MATH 306W - Teaching Mathematics in

 Secondary SchoolThis course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Prerequisite: MATH120 and CURR305; admission to the teacher education program _Notes: This course will count as credit for Learning Beyond the Classroom. _Not open to freshmen, sophomores or students on academic probation

## MATH 311 - Mathematical Problem Solving

Problem solving strategies including
deduction, argument by contradiction, induction, symmetry, the extreme principle, the pigeonhole principle and invariants.
These strategies are exemplified by tackling open-ended problems in the areas of algebra, combinatorics, number theory and calculus.
__Credit Hours: 3 hrs _Prerequisite:
MATH211

## MATH 319 - Mathematical Modeling

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. _Credit Hours: 3 hrs _Prerequisite: MATH120 and MATH122

## MATH 325 - Differential Equations

First and second order differential equations with applications, linear differential equations, power series solutions, Laplace transforms. _Credit Hours: 3 hrs _Prerequisite: MATH121 and MATH122

## MATH 341 - College Geometry

An introduction to several geometries such as affine, projective, space-time and nonEuclidean. __Credit Hours: 3 hrs _Prerequisite: MATH211

## MATH 360 - Statistical Methods

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. __Credit Hours: 3 hrs _Prerequisite: MATH120

## MATH 370 - Probability and Statistics I

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. __Credit Hours: 4 hrs _Prerequisite: MATH223

## MATH 372 - Problems in Actuarial Studies I

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 Society of Actuaries Exam P: Probability.) __Credit Hours: 2 hrs _Prerequisite: Department permission only; minimum GPA in mathematics of 3.4 is strongly recommended

## MATH 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## MATH 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## MATH 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## MATH 381 - Teaching Mathematics in Elementary School

Learning how to teach mathematics to students in the elementary grades, with an emphasis on problem solving and concept development. Attention is focused on learning/teaching situations and effective use of learning aids. Required of all prospective
elementary teachers. __Credit Hours: 3 hrs _Prerequisite: MATH 108, MATH 110E and CURR 304; admission to the teacher education program _Notes: Not open to students on academic probation

## MATH 382 - Technology in the Mathematics Classroom

An introduction to way in which calculators and computers can be used effectively to enhance instruction in the elementary and middle school mathematics classroom. __Credit Hours: 3 hrs _Prerequisite: MATH210

## MATH 387 - Cooperative Education in Mathematics

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. __Credit Hours: 3 hrs _Prerequisite: junior or senior majoring in mathematics, MATH223 _Notes: admittance to program by application only, department permission. Use on mathematics major subject to department permission. Graded on a credit/no-credit basis.

## MATH 400 - History and Development of Mathematics

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. _Credit Hours: 3 hrs _Prerequisite: MATH121/122

## MATH 401 - Mathematics and Its History for Elementary/Middle School Teachers

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. __Credit Hours: 3 hrs _Prerequisite: MATH240/301

## MATH 403-Current Research in Elementary School Mathematics

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. __Credit Hours: 3 hrs _Prerequisite: MATH301 and CURR304

## MATH 407 - Elementary Number Theory

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. __Credit Hours: 3 hrs _Prerequisite: MATH211

## MATH 409-Cryptology

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.
_Credit Hours: 3 hrs _Prerequisite:
MATH205 or MATH211

## MATH 411 - Abstract Algebra

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. __Credit Hours: 3 hrs _Prerequisite: MATH211

## MATH 416-Linear Algebra

Theoretical aspects of linear algebra: vector spaces, linear transformations and matrices, systems of linear equations, diagonalization, inner product spaces. __Credit Hours: 3 hrs _Prerequisite: MATH122/211

## Algebra <br> 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. __Credit Hours: 3 hrs _Prerequisite: MATH121/122 <br> MATH 419 - Advanced Mathematical Modeling

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. Credit Hours: 3 hrs _Prerequisite: MATH319

## MATH 420 - Introduction to Real Analysis

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. __Credit Hours: 3 hrs _Prerequisite: MATH211

## MATH 424 - Introduction to Complex Variables

Complex numbers, analytic functions, elementary functions and their mapping properties, conformal mapping and applications; contour integrals, CauchyGoursat Theorem and its consequences, Taylor and Laurent series, calculus of residues. __Credit Hours: 3 hrs _Prerequisite: MATH211 and MATH223

## MATH 425 - Mathematics for Scientists

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. __Credit Hours: 3 hrs _Prerequisite: MATH223

## MATH 436 - Introduction to Numerical Analysis

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. __Credit Hours: 3 hrs _Prerequisite: MATH121/122; and one of: COSC145, COSC111 or COSC245

## MATH 448 - Differential Geometry with an Introduction to General Relativity

Curve and surface theory in threedimensional space: introduction to special and general relativity. Not open to students with credit in MATH548 Introduction to Differential Geometry. __Credit Hours: 3 hrs _Prerequisite: MATH223 and MATH325

## MATH 460 - Applied Survey Sampling

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. __Credit Hours: 3 hrs _Prerequisite: MATH360 or MATH370

## MATH 461 - Linear Regression Analysis

Topics include modeling a response as a simple or multiple regression model, validity of assumptions, using models for estimation and prediction, multicolinearity, autocorrelation of error terms, residual analysis and stepwise regression. A statistical software package (SAS) is used extensively. Credit Hours: 3 hrs Prerequisite: MATH122/360 or MATH370

## MATH 462 - Design and Analysis of Experiments

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. __Credit Hours: 3 hrs _Prerequisite: MATH360 or MATH370 or equivalent

## MATH 471 - Probability and Statistics II

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. __Credit Hours: 3 hrs _Prerequisite: MATH370

## MATH 472 - Problems in Actuarial Studies II

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 Society of Actuaries Exam FM: Financial Mathematics.) __Credit Hours: 2 hrs _Prerequisite: Department permission; a minimum GPA in mathematics of 3.4 is strongly recommended

## MATH 474 - Applied Statistics

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. _Credit Hours: 3 hrs _Prerequisite: MATH360 or MATH370

## MATH 474W - Applied Statistics

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Prerequisite: MATH360 or MATH370

## MATH 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 478-Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 487-Cooperative Education in Mathematics

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 __Credit Hours: 3 hrs _Prerequisite: junior or senior majoring in mathematics, admittance to program by application only, MATH387, department permission _Notes: Use on mathematics major subject to department permission. Graded on a credit/no-credit basis.

## MATH 497 - Independent Study

A report on an approved subject in the field of mathematics under the guidance of the Mathematics Department staff. __Credit Hours: 1 hr _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 498 - Independent Study

A report on an approved subject in the field of mathematics under the guidance of the Mathematics Department staff. __Credit Hours: 2 hrs _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 499 - Independent Study

A report on an approved subject in the field of mathematics under the guidance of the Mathematics Department staff. __Credit Hours: 3 hrs _Prerequisite: undergraduate grade point average in mathematics 3.0 or above and department permission

## MATH 571-Mathematical Statistics I: Probability Theory

Set theory, Borel sets, Sigma field of events, probability measures on a Sigma field, axioms, finite and countable spaces, random variables and distributions, functions of random vectors, derived distributions, generating and characteristic functions, limit theorems, modes of convergence, law of large numbers. Completion of courses in real analysis and calculus-based probability and statistics is assumed. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## MATH 574 - Applied Statistics

An empirical approach to statistics: generate samples and model distributions; tests of fit to specified distributions; tests of assumptions of randomness (trend); independence (association); biostatistics; product and system reliability. Not open to students with credit in MATH474. Completion of a calculus-based probability and statistics course is assumed. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## MET 211 - Statics

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. __Credit Hours: 3 hrs _Prerequisite: PHY223

## MET 223 - Descriptive Geometry

Students will develop the graphical procedures for working with points, lines, planes and solids in space and in relation to other points, lines, planes and solids. Intersections and developments of these geometric features will be performed.
__Credit Hours: 2 hrs _Lecture/Lab Hours:
Lecture and laboratory course _Prerequisite:
MATH107 and PDD122

## MET 312 - Applied Dynamics Principles

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. __Credit Hours: 3 hrs _Prerequisite: MATH120, PHY223 and MET211

## MET 313-Applied Mechanics of Materials

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. __Credit Hours: 3 hrs _Prerequisite: MATH120, PHY223 and MET211

## MET 314 - Applied Thermodynamics and Heat Transfer

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. __Credit Hours: 3 hrs _Prerequisite: MATH120 and PHY223

## MET 319 - Fluid Mechanics

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. _Credit Hours: 3 hrs _Prerequisite: MET211

## MET 411 - Mechanical/Machine Design

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. __Credit Hours: 3 hrs _Prerequisite: MFG124, COSC111, MET313 and MET312

## MET 434 - Finite Element Analysis for Engineering Applications

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. __Credit Hours: 3 hrs _Prerequisite: CADM223 and MET313

## MET 437 - Kinematics of Machines

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. __Credit Hours: 3 hrs _Prerequisite: MET313 and MET312

## MET 470-Mechanical Vibrations

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. _Credit Hours: 3 hrs _Prerequisite: MET312

## MET 492 - Senior Design Projects I

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. __Credit Hours: 3 hrs _Prerequisite: ENGL324, MET411, MET434, MET437 and MET470

## MET 493 - Senior Design Projects II

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. __Credit Hours: 3 hrs _Prerequisite: MET492

## MGMT 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## MGMT 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## MGMT 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## MGMT 202 - Business Communication

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. __Credit Hours: 3 hrs _Prerequisite: ENGL121 and CTAS121 or CTAS124 corequisite

## MGMT 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## MGMT 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## MGMT 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## MGMT 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 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. Credit Hours: 2 hrs

## MGMT 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

MGMT 381 - Cooperative Education in Management

Use on a management major or minor not permitted __Credit Hours: 1hr_Prerequisite: MGMT202, department permission _Notes: Admittance by application only.

## MGMT 382-Cooperative Education in Management

Use on a management major or minor not permitted __Credit Hours: 2 hrs _Prerequisite: MGMT202, department permission _Notes: Admittance by application only.

## MGMT 384 - Human Resource

## Management

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. __Credit Hours: 3 hrs

## MGMT 386-Organizational Behavior and Theory

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.
Credit Hours: 3 hrs

## MGMT 387-Cooperative Education in Management

Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management __Credit Hours: 3 hrs _Prerequisite: MGMT202 and department permission _Notes: Use on a management major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.

## MGMT 388 - Introduction to Entrepreneurship

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. __Credit Hours: 3 hrs

## MGMT 402 - Business Report Writing

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. __Credit Hours: 3 hrs _Prerequisite: MGMT202

## MGMT 403-Managerial Communication: Theory and Application

A theoretical framework of key managerial communication concepts; skills used to diagnose communication problems and to communicate corporate policies. __Credit Hours: 3 hrs _Prerequisite: MGMT202 or department permission

## MGMT 450 - Leadership Theories and Practice

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. __Credit Hours: 3 hrs

## MGMT 457 - The Merlanti Corporate Ethics Seminar

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. __Credit Hours: 3 hrs _Prerequisite: department permission is required

## MGMT 460 - Management Skills

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, eercises, group projects and student presentations __Credit Hours: 3 hrs _Prerequisite: MGMT384 and MGMT386
_Notes: This course can be used as a substitute for MGMT480.

## MGMT 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## MGMT 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs

## MGMT 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

MGMT 480-Management Responsibility and Ethics

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. __Credit Hours: 3 hrs _Prerequisite: senior standing or department permission _Notes: MGMT457 can be used as a substitute for this course.

## MGMT 480W - Management <br> Responsibility and Ethics

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: senior standing or department permission _Notes: MGMT457 can be used as a substitute for this course.

## MGMT 481 - Managing the Entrepreneurial Venture

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. __Credit Hours: 3 hrs _Prerequisite: MGMT388 or department permission

## MGMT 482-Compensation

## Administration

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.
Credit Hours: 3 hrs _Prerequisite:
MGMT384

## MGMT 483-Staffing Organizations

The staffing of organizations; skills needed in human resource planning, recruitment, job analysis, selection techniques and evaluation.
_Credit Hours: 3 hrs _Prerequisite:
MGMT384

## MGMT 484-Management-Union Relations

Management strategy and techniques for conducting effective management-union relationships and negotiations; contract administration for both industrial and nonindustrial organizations. __Credit Hours: 3 hrs _Prerequisite: MGMT384

## MGMT 485-Human Resource Development

Determination of training needs; development of training objectives; selection and development of resources for appropriate training experiences; implementation of training program evaluation. __Credit Hours: 3 hrs _Prerequisite: MGMT384 or department permission

## MGMT 486-Organizational Change and Team Building

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. __Credit Hours: 3 hrs _Prerequisite: MGMT386 or department permission

## MGMT 487-Cooperative Education in Management

Four months of full-time employment at a business or public organization in a management position chosen for imparting practical experience in management.
__Credit Hours: 3 hrs _Prerequisite:
MGMT387; department permission _Notes: Use on a management major or minor not permitted. Offered on a credit/no-credit basis. Admittance by application only.

## MGMT 488 - Field Studies in Entrepreneurship

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. _Credit Hours: 3 hrs _Prerequisite: MGMT388 or department permission

## MGMT 488L - Field Studies in Entrepreneurship

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. __Credit Hours: 3 hrs _Prerequisite: MGMT388 or department permission _Notes: This course will count as credit for Learning Beyond the Classroom.

## MGMT 489-Management Internship

Approved on-the-job experience of students in the management internship program supplemented by seminars as appropriate __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Open only to students formally enrolled in the program and taken during their terms of supervised work experience. Offered on a credit/no-credit basis.

## MGMT 490 - Business Policy

Integration and analytical application of fundamental areas of business-to-case problems. Policy issues in the identification and resolution of problem situations.
__Credit Hours: 3 hrs _Prerequisite: senior standing in business administration or department permission (senior standing implies completion of the College of Business core: FIN350, MKTG360, MGMT386, OM374)

## MGMT 492 - Managing World Business Communication

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. __Credit Hours: 3 hrs _Prerequisite: MGMT202 or department permission

## MGMT 495 - International Management

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. __Credit Hours: 3 hrs
_Prerequisite: MGMT386 or department permission

MGMT 496 - Current Issues in Human Resource Management

A practical application of HR management techniques to current business issues; specially designed workshop-type sessions for prospective managers, supervisors and personnel specialists. __Credit Hours: 3 hrs _Prerequisite: MGMT384

## MGMT 497 - Independent Study

Directed study of a problem in management not otherwise treated in department courses.
__Credit Hours: 1 hr _Prerequisite:
department permission

## MGMT 498 - Independent Study

Directed study of a problem in management not otherwise treated in department courses.
Credit Hours: 2 hrs _Prerequisite:
department permission

## MGMT 499 - Independent Study

Directed study of a problem in management not otherwise treated in department courses. __Credit Hours: 3 hrs _Prerequisite: department permission

## MKTG 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## MKTG 178 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## MKTG 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## MKTG 261 - Contemporary Selling

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. __Credit Hours: 3 hrs

## MKTG 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 1 hr

## MKTG 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 2 hrs

## MKTG 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## MKTG 285-Cooperative Education

Employment at a business or public organization in a marketing position. __Credit Hours: 1 hr _Notes: General elective credit only. Offered on a credit/nocredit basis

## MKTG 286-Cooperative Education

Employment at a business or public organization in a marketing position. _Credit Hours: 2 hrs _Notes: General elective credit only. Offered on a credit/nocredit basis

## MKTG 287-Cooperative Education

Employment at a business or public organization in a marketing position. __Credit Hours: 3 hrs _Notes: General elective credit only. Offered on a credit/nocredit basis

## MKTG 360 - Principles of Marketing

Marketplace exchanges; the relationship between marketing activities of the organization and the consumer. __Credit Hours: 3 hrs

## MKTG 363-Retailing

The practices of retail store management: store location, layout, organization, buying systems, sales promotion activities, customer services and store operating expenses.
_Credit Hours: 3 hrs _Prerequisite: MKTG360

## MKTG 365-Consumer Behavior

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.
__Credit Hours: 3 hrs _Prerequisite:
MKTG360 and PSY101

## MKTG 368 - Marketing Strategy

Advanced policies and practices in marketing. Case analysis of marketing problems pertinent to product, price, promotion and channels of distribution policies. __Credit Hours: 3 hrs _Prerequisite: MKTG360 and ACC240

## MKTG 368W - Marketing Strategy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Prerequisite: MKTG360 and ACC240

## MKTG 369 - Advertising

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.
Credit Hours: 3 hrs _Prerequisite: MKTG360

## MKTG 374 - Business to Business Marketing

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. __Credit Hours: 3
hrs _Prerequisite: MKTG360

## MKTG 375 - International Business Transactions

How goods and services are moved internationally. Transportation concepts and systems, the shipping scene, various documents needed to expedite the international movement of goods. __Credit Hours: 3 hrs _Prerequisite: MKTG360

## MKTG 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied __Credit Hours: 1

## MKTG 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## MKTG 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## MKTG 385-Cooperative Education

Employment at a business or public organization in a marketing position. __Credit Hours: 1 hrs _Prerequisite: department permission _Notes: General elective credit only. Offered on a credit/nocredit basis

## MKTG 386-Cooperative Education

Employment at a business or public organization in a marketing position. __Credit Hours: 2 hrs _Prerequisite: department permission _Notes: General elective credit only. Offered on a credit/nocredit basis.

## MKTG 387-Cooperative Education

Employment at a business or public organization in a marketing position. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: General elective credit only. Offered on a credit/nocredit basis

## MKTG 425 - Sports and Event Marketing

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. __Credit Hours: 3 hrs Prerequisite: MKTG360

## MKTG 430-Marketing of Services

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. __Credit Hours: 3 hrs _Prerequisite: MKTG360

## MKTG 460 - International Marketing

International marketing and its role in the multinational corporation. Appraising international opportunities; product, price, promotion and distribution policies; foreign marketing environments. __Credit Hours: 3
hrs _Prerequisite: MKTG360

## MKTG 461 - Sales Management

Planning, organizing, directing and controlling the sales force. Recruiting, selecting, training, evaluating, compensating and supervising. __Credit Hours: 3 hrs _Prerequisite: MKTG261 and MKTG360

## MKTG 470-Marketing Research

Skills and attitudes required to specify and utilize market and buyer information in defining marketing problems and making marketing decisions. Applied marketing research problems. __Credit Hours: 3 hrs _Prerequisite: MKTG360 and DS265

## MKTG 474-Promotional Strategy

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. __Credit Hours: 3 hrs _Prerequisite: MKTG369

MKTG 475 - Marketing Planning and Management

Integration of concepts from previous marketing courses and planning the marketing program. __Credit Hours: 3 hrs _Prerequisite: MKTG368

## MKTG 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: MKTG360

## MKTG 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: MKTG360

## MKTG 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: MKTG360

## MKTG 485-Cooperative Education in Marketing

Employment at a business or public organization in a marketing position.
__Credit Hours: 1 hr _Prerequisite:
MKTG387 and department permission
_Notes: Offered on a credit/no-credit basis. General elective credit only.

## MKTG 486-Cooperative Education in Marketing

Employment at a business or public organization in a marketing position. __Credit Hours: 2 hrs _Prerequisite: MKTG387 and department permission _Notes: Offered on a credit/no-credit basis. General elective credit only.

## MKTG 487-Cooperative Education in

## Marketing

Employment at a business or public organization in a marketing position __Credit

Hours: 3 hrs _Prerequisite: MKTG387 and department permission _Notes: Offered on a credit/no-credit basis. General elective credit only.

## MKTG 497 - Independent Study

Approved marketing projects with business or nonprofit organizations. __Credit Hours: 1 hr _Prerequisite: marketing major and department permission

## MKTG 498 - Independent Study

Directed study of a problem or group of problems in production systems or management science. __Credit Hours: 2 hrs _Prerequisite: department permission

## MKTG 499 - Independent Study

Directed study of a problem or group of problems in production systems or management science. __Credit Hours: 3 hrs _Prerequisite: department permission

## MKTG 510 - Marketing Management

This course introduces students to the basic concepts, practices and analytical techniques of marketing. As such, it is designed to be comprehensive in scope, contemporary in outlook and managerial in orientation. It may include computerized-decision simulation and teamwork. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## MSL 101 - Foundations of Officership

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. __Credit Hours: 2 hrs

## MSL 102 - Basic Leadership

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.
_Credit Hours: 2 hrs _Prerequisite: MSL101 or department permission

## MSL 201 - Individual Leadership Studies

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. __Credit Hours: 2 hrs _Prerequisite: MSL101 and MSL102 or department permission

## MSL 202 - Leadership and Teamwork

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 problemsolving process and obtaining team buy-in through immediate feedback and additional physical fitness training. __Credit Hours: 2 hrs _Prerequisite: MSL101, MSL102, MSL201 or department permission

## MSL 301 - Leadership and Problem Solving

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. __Credit Hours: 3 hrs _Prerequisite: MSL101, MSL102, MSL201, MSL202 or department permission

## MSL 302 - Leadership and Ethics

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. __Credit Hours: 3 hrs _Prerequisite: MSL101, MSL102, MSL201, MSL202, MSL301 or department permission

## MSL 401 - Leadership and Management

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. __Credit Hours: 3 hrs _Prerequisite: MSL101, MSL102, MSL201, MSL202, MSL301, MSL302 or department permission

## MSL 402 - Officership

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. __Credit Hours: 3 hrs _Prerequisite: MSL101, MSL102, MSL201, MSL202, MSL301, MSL302, MSL401 or department permission

## MSL 497 - Independent Study

Intensive study or project approved by the department head. Study or project is directly related to a military subject. __Credit Hours: 1 hr _Prerequisite: department permission

## MSL 498 - Independent Study

Intensive study or project approved by the department head. Study or project is directly related to a military subject. __Credit Hours: 2 hrs _Prerequisite: department permission

## MSL 499 - Independent Study

Intensive study or project approved by the
department head. Study or project is directly related to a military subject. __Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 100 - Introduction to Music Theory

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.__Credit Hours: 3 hrs

## MUSC 101 - Music Theory I

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. _ Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 102 - Music Theory II

Continuation of MUSC101. For music majors and minors. Taken concurrently with
MUSC129. __Credit Hours: 3 hrs _Prerequisite: MUSC101 (with a grade of C or better) and MUSC119 _Corequisites: MUSC129

## MUSC 103 - Introduction to Music Therapy

An orientation to music therapy. Introductory survey of the various clientele served by music therapists, current career opportunities and exploration of interventions utilized by music therapists to achieve specific music therapy goals. Observation of Board Certified Music Therapists in hospital, clinical and school settings is required. __Credit Hours: 3 hrs

## MUSC 106 - Introduction to the Performing Arts

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. __Credit Hours: 3 hrs

## MUSC 107 - Music Appreciation

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. __Credit Hours: 3 hrs

## MUSC 109 - Music Therapy Improvistion Ensemble I

This introductory course will explore various improvisational techniques, including instrumental, vocal and movement improvisations. The student will gain insight in regards to making personal-musical decisions. To begin the exploration of the possible uses of improvisation in music therapy clinical practice. __Credit Hours: 1 hr _Prerequisite: MUSC103; students in Bachelor of Music Therapy or PostBaccalaureate Certificate: Music Therapy Equivalency only

## MUSC 118 - Music Literature I

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. _Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 119-Aural Skills I

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. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 128 - Music Literature II

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. __Credit Hours: 1 hr _Prerequisite: MUSC101, MUSC118 and MUSC119

## MUSC 129 - Aural Skills II

A continuation of MUSC1 19. 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. __Credit Hours: 1 hr` _Prerequisite: MUSC101 and MUSC119 (with a grade of C or better) _Corequisites: MUSC102.

## MUSC 131 - University Choir

Open to all students in the University. An audition is required. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 134 - University Women's Chorus

Open to all women students. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 135 - University Men's Chorus

Open to all men students. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 136-Chamber Choir

Open to all students in the University. An audition is required. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 149 - Athletic Band

The Athletic Band rehearses music and performs at selected athletic events in the fall and winter terms. During the fall, this ensemble, the EMU Marching Band, performs at home football games and, as determined by the instructor, other
community events. In winter, the Athletic Band performs for a schedule of the university's men's and women's basketball home games. It may also performa for the post season basketball competition. An entrance audition is required. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 151 - Class Piano

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. __Credit Hours: 2 hrs

## MUSC 152-Class Piano

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.
_Credit Hours: 2 hrs _Prerequisite:
MUSC151; department permission

## MUSC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## MUSC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 201 - Music Theory III

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. _Credit Hours: 3 hrs _Prerequisite: MUSC102 (with a grade of C or better) and MUSC129 _Corequisites: MUSC219

## MUSC 202 - Music Theory IV

Continuation of MUSC201. For music majors and minors. Taken concurrently with MUSC229. __Credit Hours: 3 hrs _Prerequisite: MUSC201 (with a grade of C or better) and MUSC219 _Corequisites: MUSC229

MUSC 209-Music Therapy Improvisation Ensemble II

This post-introductory course explores improvisatory skills on piano, guitar and in voice using the pentatonic, organum, sedative and blues styles. _Credit Hours: 1 hr _Prerequisite: MUSC109; sophomore standing or above; students in Bachelor of Music Therappy or Post-Baccalaureate Certificate: Music Therapy Equivalency programs only

## MUSC 211 - Basic Brass Class

The teaching and playing of trumpet and trombone. Majors and minors only. __Credit Hours: 1 hr

## MUSC 212 - Brass Class

The teaching and playing of French horn, euphonium and tuba. __Credit Hours: 1 hr _Notes: Majors and minors only.

## MUSC 218 - Music Literature III

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. __Credit Hours: 1 hr _Prerequisite: MUSC102/128/129

## MUSC 219 - Aural Skills III

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.
_Credit Hours: 1 hr _Prerequisite:
MUSC102 and MUSC129 (with a grade of C or better) _Corequisites: MUSC201

## MUSC 224 - Recreational Music

For recreation majors. Specific activities, techniques and resources for directing recreational music programs. __Credit Hours: 2 hrs

## MUSC 225 - Voice Skills with Special Populations

Presents the voice skills necessary to facilitate therapeutic processes with clients ranging in ages, backgrounds and disabilities in group an individual music therapy sessions. Repertoire will include traditional, folk, and popular songs that reflect a variety of cultures and preferences. __Credit Hours: 1 hr _Prerequisite: MUSC232; sophomore standing and above; students in Bachelor of Music Therapy, Bachelor of Music Education Vocal, Bachelor of Music Education Instrumental or Post-Baccalaureate Certificate: Music Therapy Equivalency programs only

## MUSC 226-Guitar Skills with Special Populations

Presents the guitar skills necessary to facilitate therapeutic processes with clients ranging in ages, backgrounds and disabilities in group and individual music therapy sessions. Repertoire will include traditional, folk and popular guitar accompaniments that reflect a variety of Cultures and preferences.
_Credit Hours: 2 hrs _Prerequisite:
sophomore standing and above; students in Bachelor of Music Therapy, Bachelor of Music Education Vocal, Bachelor of Music Education Instrumental or Post-Baccalaureate Certificate: Music Therapy Equivalency programs only

## MUSC 228 - Basic Music Literature

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.__Credit Hours: 3 hr _Prerequisite: MUSC201, MUSC218 and MUSC219

## MUSC 229 - Aural Skills IV

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. _Credit Hours: 1 hr _Prerequisite: MUSC201 and MUSC219 (with a grade of C or better) _Corequisites: MUSC202

## MUSC 232 - Voice Class

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. __Credit Hours: 1 hr _Prerequisite: the ability to read music in the clef appropriate to student's voice classification

## MUSC 235 - Diction in Singing

The physiological descriptions and laboratory practice of diction as used in singing English, French, German, Italian and Latin. __Credit Hours: 2 hrs

## MUSC 236 - Pre-internship Clinical Training in Music Therapy I

Introductory fieldwork experience in music therapy. Observation and documentation of music therapy sessions in clinical or educational settings. __Credit Hours: 1 hr _Prerequisite: MUSC102, MUSC103; students in the program of Bachelor of Music Therapy or Bachelor of Music Therapy: PostBaccalaureate Certificate: Music Therapy Equivalency, only

## MUSC 237 - Pre-internship Clinical Training in Music Therapy II

Introductory fieldwork experience in music therapy. Observation and documentation of music therapy sessions in clinical and educational settings. __Credit Hours: 1 hr _Prerequisite: MUSC102, MUSC103; students in the program of Bachelor of Music Therapy or Bachelor of Music Therapy: PostBaccalaureate Certificate: Music Therapy Equivalency, only

## MUSC 238 - Methods and Materials in Music Therapy

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.__Credit Hours: 3 hrs _Prerequisite: MUSC221; students in Bachelor of Music Therapy or PostBaccalaureate Certificate: Music Therapy Equivalency programs only

## MUSC 241 - Percussion

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. __Credit Hours: 1 hr

## MUSC 243 - Percussion Ensemble

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. __Credit Hours: 1 hr _Prerequisite: percussion major or minor or department permission

## MUSC 244 - Jazz Ensemble

Performance class dealing with the elements of jazz arrangement, improvisation and ensemble techniques with special emphasis on the function of jazz in music education.

Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 246 - String Ensemble

Chamber music for strings. _Credit Hours: 1
hr Prerequisite: department permission

## MUSC 247 - Woodwind Ensemble

Chamber music for woodwinds. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 248 - Orchestra

Open to all students in the University. An audition is required. _Credit Hours: 1 hr _Prerequisite: MUSC249 includes Concert Winds, Symphonic Band and Marching Band. Open to all students of the University.

## MUSC 249 - Band

Wind band performance classes. Open to all students in the University. An audition is required for placement in the Wind Symphony and my be required for the Symphonic Band. __Credit Hours: 1 hr

## MUSC 251 - Functional Piano

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 __Credit Hours: 1 hr _Prerequisite: majors or minors only

## MUSC 252 - Functional Piano

Continuation of MUSC251. __Credit Hours: 1 hr Prerequisite: MUSC251 or equivalent; majors or minors _Cross-Listed: minors only

## MUSC 253 - Functional Piano

Continuation of MUSC252. Stresses keyboard harmony, accompaniment, sightreading, piano literature and technique. Credit Hours: 1 hr _Prerequisite:

MUSC252; majors or minors only

## MUSC 254 - Functional Piano

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. __Credit Hours: 1 hr _Prerequisite: MUSC253 or equivalent; majors or minors only

## MUSC 261 - Basic String Class: Violin

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.
Credit Hours: 1 hr

## MUSC 262 - String Class: Viola

Continuation of MUSC261; teaching and playing of viola. Majors and minors only. Credit Hours: 1 hr _Prerequisite: MUSC261

## MUSC 263 - String Class: Cello and

 Double BassThe teaching and playing of cello and double bass. Majors and minors only. __Credit Hours: 1 hr

## MUSC 271 - Beginning Classical Guitar

Group instruction in classical guitar through the study of standard beginning methods and repertoire. __Credit Hours: 2 hrs
Prerequisite: department permission

## MUSC 272 - Intermediate Classical Guitar

Group instruction in classical guitar through the study of standard intermediate methods and repertoire. __Credit Hours: 2 hrs _Prerequisite: MUSC271

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. _Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 281 - Basic Woodwind Class

The teaching and playing of clarinet; __Credit Hours: 1 hr _Notes: Majors and minors only

## MUSC 282 - Woodwind Class

The teaching and playing of flute and saxophone. _Credit Hours: 1 hr _Notes: Majors and minors only.

## MUSC 283 - Woodwind Class

The teaching and playing of oboe and bassoon __Credit Hours: 1 hr _Notes: Majors and minors only.

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. __Credit Hours: 4 hrs _Prerequisite: MUSC202

## MUSC 302 - History of Music

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. _Credit Hours: 3 hrs _Prerequisite: MUSC301

## MUSC 303-Music Therapy Clinical

 ApproachesProvides an exploration of the music therapy literature as it relates to people who are diagnosed with various dysfunctions. This exploration deals with a variety of theoretical approaches and music therapy clinical applications. Developed are music therapy leadership skills that are necessary to implement goal oriented sessions. __Credit Hours: 2 hrs _Prerequisite: students in the program of Bachelor of Music Therapy or Post-Baccalaureate Certificate: Music Therapy Equivalency, only; admission to the music therapy program. PSY101 or PSY102, and MUSC223

## MUSC 304 - Music Therapy Professional Skills

Exploration of professional skills needed by music therapists in a variety of clinical settings. Includes examination of music therapy literature, development of professional presentational skills and creation of a professional portfolio. Continued development of music therapy leadership skills that are necessary to implement goal oriented sessions. __Credit Hours: 2 hrs _Prerequisite: MUSC303, MUSC323; students in the program of Bachelor of Music Therapy or Post-Baccalaureate Certificate: Music Therapy Equivalency, only

Sight reading, harmonization, transposition, improvisation and score reading. __Credit Hours: 2 hrs _Prerequisite: MUSC102 and MUSC254 or department permission; majors or minors only

## MUSC 309-Music Therapy Improvisation Ensemble III

This intermediate level course applies previously learned improvisatory skills to various approaches used in music therapy, including Orff Music Therapy, NordoffRobbins Music Therapy and music therapy in conjunction with other creative arts. __Credit Hours: 1 hr _Prerequisite: MUSC209; junior standing and above; students in Bachelor of Music Therapy or Post-Baccalaureate Certificate: Music Therapy Equivalency programs only

## MUSC 317 - Music Composition

Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit. __Credit Hours: 2 hrs _Prerequisite: MUSC202 and department permission

## MUSC 320 - Elementary Music Education

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.
_Credit Hours: 3 hrs _Prerequisite: junior standing

## MUSC 323 - Pre-internship Clinical

 Training in Music Therapy IIIIntermediate fieldwork experience in clinical or educational settings under supervision of a Board Certified Music Therapist, or other qualified professional as defined by the Standards for Education and Clinical Training from the American Music Therapy Association. __Credit Hours: 1 hr _Prerequisite: MUSC222 and MUSC223; junior standing and above; students in Bachelor of Music Therapy or PostBaccalaureate Certificate: Music Therapy Equivalency programs only _Concurrent Prerequisite: MUSC303 _Corequisites: MUSC303

## MUSC 324 - Pre-internship Clinical Training in Music Therapy IV

Intermediate fieldwork experience continued.
Credit Hours: 1 hr _Prerequisite:
MUSC323; junior standing and above; students in Bachelor of Music Therapy or Post-Baccalaureate Certificate: Music
Therapy Equivalency programs only
_Concurrent Prerequisite: MUSC304
_Corequisites: MUSC304

## MUSC 326 - Conducting

Fundamentals of baton technique, score reading, and interpretation of instrumental and vocal music. __Credit Hours: 2 hrs _Prerequisite: junior standing; majors or minors only

## MUSC 327 - Instrumental Conducting

A practical course in instrumental conducting; score preparation, baton technique, study of technical and musical problems in conducting traditional and contemporary works. __Credit Hours: 2 hrs _Prerequisite: MUSC326

## MUSC 328 - Choral Conducting

A practical course in choral conducting; baton technique, score analysis, study of technical and musical problems in conducting traditional and contemporary works. __Credit Hours: 2 hrs _Prerequisite: MUSC326

## MUSC 330 - Music Education in the Elementary School

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. __Credit Hours: 3 hrs _Prerequisite: 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

## MUSC 331 - Music Education in the Secondary School

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. __Credit Hours: 3 hrs _Prerequisite: junior standing; satisfactory completion of MUSC330; proficiency in piano and voice _Corequisites: MUSC328; admission to the teacher education program

## MUSC 332 - Instrumental Music in the Public Schools

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. __Credit Hours: 3 hrs
_Prerequisite: junior standing and admission to the College of Education

## MUSC 333-Orchestral Methods

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. __Credit Hours: 3 hrs _Prerequisite: MUSC332; junior standing; admission to the teacher education program _Notes: No students on academic probation.

## MUSC 334 - Band Methods

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. __Credit Hours: 3 hrs _Prerequisite: MUSC332; junior standing; admission to the teacher education program

## MUSC 341 - Contrapuntal Techniques

Writing in polyphonic forms with concomitant analysis. __Credit Hours: 2 hrs _Prerequisite: MUSC202

## MUSC 351 - Collegium Musicum

Various ensembles of soloists instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. __Credit Hours: 1 hr _Notes: Open to all qualified students.

## MUSC 361 - Music for Piano Instruction

Study of method books and materials suitable for use with beginning- and intermediatelevel students. __Credit Hours: 2 hrs _Prerequisite: junior standing

## MUSC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 387 - Cooperative Education in Music

A cooperative work experience in the field of music. _Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 401 - Music Theory-Literature V

Integration of previous studies in theoryliterature and music history; continued study and analysis of music from all periods; original, creative composition with special emphasis on contemporary style. __Credit Hours: 2 hrs _Prerequisite: MUSC202

MUSC 402 - Music Theory-Literature VI
Continuation of MUSC401. __Credit Hours:
2 hrs _Prerequisite: MUSC401

## MUSC 404 - Psychology of Music

Exploration of physiologic, neurologic, social, affective and aesthetic influences of music on human behavior. Initial development of research ideas, topics and questions. __Credit Hours: 3 hrs _Prerequisite: MUSC304; students in the program of Bachelor of Music Therapy or Post-Baccalaureate Certificate: Music
Therapy Equivalency, only

## MUSC 405 - Music Therapy Research

Introduction to evaluation of empirical research in the field; examination of the continues need for investigation and documentation in the profession of music therapy. Completion of a quantitative research proposal. __Credit Hours: 3 hrs _Prerequisite: MUSC404; only juniors and seniors in the Bachelor of Music Therapy program or students in the PostBaccalaureate Certificate: Music Therapy program

## MUSC 409 - Music Therapy Inprovisation Ensemble IV

This advanced-level course develops musical accompanying and verbal processing skills used in psychodynamic music therapy approaches. __Credit Hours: 1 hr _Prerequisite: MUSC309; junior and seniors
in Bachelor of Music Therapy or Post Bachelor Certificate: Music Therapy Equivalency only

## MUSC 413 - Orchestration

Practical work in setting compositions for full orchestra and various other instrumental ensembles. __Credit Hours: 2 hrs _Prerequisite: MUSC202

## MUSC 414 - Band Arranging

Arranging for band; transcription from other media; original composition; analysis of representative work. __Credit Hours: 2 hrs _Prerequisite: MUSC413 and senior standing

## MUSC 427 - Pre-Internship Clinical Training in Music Therapy $\mathbf{V}$

Advanced fieldwork experience in clinical or educational settings under supervision of a Board Certified Music Therapist, or other qualified professional as defined by the Standards for Education and Clinical Training from the American Music Therapy Association. Usually taken concurrently with MUSC404. _Credit Hours: 1 hr _Prerequisite: MUSC324; students in the program of Bachelor of Music Therspy or Post-Baccalaureate Certificate: Music Therapy Equivalency, only

## MUSC 428 - Pre-internship Clinical Training in Music Therapy VI

Advanced fieldwork experience continued.
Usually taken concurrently with MUSC405.
__Credit Hours: 1 hr _Prerequisite:
MUSC324; students in the program of Bachelor of Music Therapy or PostBaccalaureate Certificate: Music Therapy Equivalency, only

## MUSC 448-Opera Workshop

A laboratory-performance course that deals with performance of opera scenes and, when feasible, complete works. Musical, technical and dramatic aspects of production. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 449- Opera Workshop

A laboratory-performance course that deals with performance of opera scenes and, when feasible, complete works. Musical, technical and dramatic aspects of production. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 475-Chamber Music Performance

Study and performance of literature for small chamber groups. May be repeated for credit. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## MUSC 488 - Clinical Training Internship in Music Therapy

A minimum of 900 clock hours of supervised training in a hospital, clinical or educational setting approved by the American Music Therapy Association and/or affiliated with Eastern Michigan University. __Credit Hours: 2 hrs _Prerequisite: MUSC426, senior standing, completion of all other music therapy curriculum requirements and successful completion of guitar, keyboard and voice competency demonstrations; students in the program of Bachelor of Music Therapy or Post-Baccalaureate Certificate:

Music Therapy Equivalency, only

## MUSC 490 - Honors Course in Music

Provides superior students with the opportunity for an intensive program of independent study, original composition, performance or research. __Credit Hours: 2 hrs _Prerequisite: senior standing, cumulative average of 3.5 in music, 3.2 in general studies; regulations governing honors courses must be followed (see page 50)

## MUSC 492 - Honors Course in Music

Provides superior students with the opportunity for an intensive program of independent study, original composition, performance or research. __Credit Hours: 4 hrs _Prerequisite: senior standing, cumulative average of 3.5 in music, 3.2 in general studies; regulations governing honors courses must be followed (see page 50)

## MUSC 497 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 1 hr _Prerequisite: department permission

## MUSC 498 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 2 hrs _Prerequisite: department permission

## MUSC 499 - Independent Study

Independent study, under the supervision of a department member, in areas in which the department does not offer a course. __Credit Hours: 3 hrs _Prerequisite: department permission

## NITA 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

1 hr _Prerequisite: department permission

## NITA 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## NITA 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## NITA 210 - Concepts of Network and Business Technology

The concepts and functions of networks and related business technology. The course emphasizes administration client/sever and peer-to-peer networks. The course includes equipment, procedures and career opportunities. __Credit Hours: 3 hrs _Prerequisite: Error in Printed Catalog: BMMT 201

NITA 212 - Open Systems Platform and Network Administration

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. __Credit Hours: (3 hrs)

## NITA 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## NITA 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## NITA 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3hrs _Prerequisite: department permission

## NITA 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1hr _Prerequisite: department permission

## NITA 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## NITA 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## NITA 344 - Administration of Computer Systems

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. __Credit Hours: 3 hrs _Prerequisite: NITA210 and sophomore, junior or senior standing

## NITA 354 - Multi-Level Networking

This course will focus on the connectivity required to build two- to n-tiered networks. Students will configure and administer
routers utilizing CISCO IOS. Security concepts for LAN and WAN environments are discussed. This course builds on prerequisite knowledge of the TCP/IP protocol suite, networking, and WAN/LAN topology concepts. __Credit Hours: 3 hrs _Prerequisite: junior or senior level standing and be admitted to the Network and Information Technology Administration program

## NITA 364 - Special Network Server Administration

This course will focus on the technology, methodology and implementation issues of network based application. Special network services include electronic mail, Web/Application, proxy, storage, and collaboration services. Security issues related to the technology are discussed. This course contains a lab component in which students assemble server technology discussed in lecture. __Credit Hours: 3 hrs _Prerequisite: NITA344 and be admitted to the Network and Information Technology Administration program

## NITA 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1hr _Prerequisite: NITA344

## NITA 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2hrs _Prerequisite: NITA344

## NITA 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: NITA344

## NITA 387-Co-operative Education

Credit Hours: 3 hrs

## NITA 412 - Linux Security Administration

Students in this course build complex Linuxbased 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. Credit Hours: 3 hrs _Prerequisite: NITA212

## NITA 415 - Introduction to Research in Information Assurance

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 IA/NITA416. __Credit Hours: 3 hrs _Prerequisite: STS300, all AI foundation courses and at least 15 hours in concentration _Cross-Listed: This course is cross-listed with IA415.

## NITA 416 - Applied Research Projects in Information Assurance

Students will conduct and write the results of the research study proposed in IA/NITA415. This includes modifying any aspects of the methods of thee study that may be necessary. The final results will be prepared and presented according to guidelines of an appropriate style manual. Honors students may use this project in conjunction with completing the senior thesis. __Credit Hours: 3 hrs _Prerequisite: IA/NITA415 _CrossListed: This course is cross-listed with IA416.

## NITA 422 - Networks: Planning and Design

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. __Credit Hours: 3 hrs _Prerequisite: NITA344

## NITA 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## NITA 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## NITA 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## NITA 487-Co-operative Education

Credit Hours: 3 hrs

## NITA 495- Networks: Implementation and Evaluation

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. __Credit Hours: 3 hrs _Prerequisite: NITA344

## NITA 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr
_Prerequisite: department permission

## NITA 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 2 hrs
_Prerequisite: department permission

## NITA 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## NURS 110 - Introduction to Professional Nursing

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. __Credit Hours: 2 hrs

## NURS 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## NURS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## NURS 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs

NURS 208 - The Art and Science of Nursing I

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 socioeconomic status. __Credit Hours: 2 hrs _Prerequisite: nursing major _Corequisites: NURS209

## NURS 209 - The Art and Science of Nursing I Laboratory

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. __Credit Hours: 3 hrs _Prerequisite: nursing major _Corequisites: NURS208

## NURS 220 - Health Assessment

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. __Credit Hours: 2 hrs _Prerequisite: nursing major _Corequisites: NURS275

## NURS 250 - The Art and Science of Nursing II

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208,

NURS209, NURS220 and NURS275
_Corequisites: NURS251, NURS260, NURS270

## NURS 251 - The Art and Science of Nursing II Laboratory

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220 and NURS275 _Corequisites: NURS250, NURS260 and NURS270

## NURS 260 - Pathophysiology

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. __Credit Hours: 4 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220 and NURS275 _Corequisites: NURS250. NURS251 and NURS270

## NURS 270 - Pharmacology

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220 and NURS275 _Corequisites: NURS250, NURS251 and NURS260

## NURS 275 - Essentials of Professional Nursing Practice I

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. __Credit Hours: 3 hrs _Prerequisite: nursing major
_Corequisites: NURS220

## NURS 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: nursing major

## NURS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: nursing major

## NURS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: nursing major

## NURS 304 - Nursing Care of Childbearing Families

Nursing 304 focuses on maternal-newborn nursing within a family centered approach. The course encompasses the entire childbearing process, from preconception planning rough 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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS305, NURS306 and NURS307

## NURS 305 - Nursing Care of Childbearing Families Laboratory

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS304, NURS306 and NURS307

## NURS 306 - Child/Family Health Nursing

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. _Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS304, NURS305 and NURS307

NURS 307-Child Family Health Nursing Laboratory

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS304, NURS305 and NURS306

## NURS 330 - Adult Health Nursing I

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS331, NURS350 and NURS351

## NURS 331 - Adult Health Nursing I Laboratory

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS330, NURS350 and NURS351

## NURS 350 - Psychiatric/Mental Health Nursing

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS330,

NURS331 and NURS351

## NURS 351 - Psychiatric/Mental Health Nursing Laboratory

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. _Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275 _Corequisites: NURS330, NURS331 and NURS350

## NURS 372 - Nursing Research

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

## NURS 375 - Essentials of Professional Nursing Practice II

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS208, NURS209, NURS220, NURS250, NURS251, NURS260, NURS270 and NURS275

## NURS 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: nursing major

## NURS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: nursing major

## NURS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: nursing major

## NURS 404 - Adult Health Nursing II

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375 _Corequisites: NURS405

## NURS 405 - Adult Health Nursing II Laboratory

The primary objective of this clinical course is to apply and synthesize principles for the nursing care of adults with complex medicalsurgical 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. __Credit Hours: 3 hrs
_Prerequisite: nursing major, NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375
_Corequisites: NURS404

## NURS 450 - Community Health Nursing

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. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375 _Corequisites: NURS451

## NURS 451 - Community Health Nursing Practice

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. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375 _Corequisites: NURS450

## NURS 475 - Essentials of Professional Nursing Practice III

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. __Credit Hours: 3 hrs _Prerequisite: nursing major, NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375

## NURS 477 - Special Topics

Experimental courses or special topics in nursing may be offered. __Credit Hours: 1 hr _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375

## NURS 478 - Special Topics

Experimental courses or special topics in nursing may be offered. __Credit Hours: 2 hrs _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375

## NURS 479 - Special Topics

Experimental courses or special topics in nursing may be offered. __Credit Hours: 3 hrs _Prerequisite: nursing major; NURS304, NURS305, NURS306, NURS307, NURS330, NURS331, NURS350, NURS351, NURS372 and NURS375

## NURS 480 - Evidence Based Practice in Health Care

This course explores the critical thinking and actions of evidence-based practice in nursing. Various means to access, evaluate and use evidence in nursing and health care are practiced. In addition to class discussions, students participate in web-based learning activities, independently exploring evidencebased guidelines in their areas of choice.
__Credit Hours: 3 hrs

## NURS 497 - Independent Study

A student may work with a faculty member independently to pursue a topic of interest to the student. Independent study is a studentinitiated project. __Credit Hours: 1 hr _Prerequisite: nursing major

## NURS 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: nursing major

## NURS 499 - Independent Study

A student may work with a faculty member independently to pursue a topic of interest to the student. Independent study is a studentinitiated project. __Credit Hours: 3 hrs _Prerequisite: nursing major

## OCTH 100-Orientation to Occupational Therapy

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. __Credit Hours: 3 hrs

## OCTH 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## OCTH 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## OCTH 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## OCTH 201-Exploring Occupational Performance in the Community

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. __Credit Hours: 3 hrs

## OCTH 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## OCTH 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## OCTH 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## OCTH 287 - Cooperative Education in

 Occupational TherapyA 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. __Credit Hours: 3 hrs _Prerequisite: approval of the Cooperative Education Office and program permission

## OCTH 350 - Exploring Occupational Performance in the Context of a Disability

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.
__Credit Hours: 3 hrs

## OCTH 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## OCTH 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## OCTH 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## OCTH 387-Cooperative Education in Occupational Therapy

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. __Credit Hours: 3 hrs _Prerequisite: OCTH287

## OCTH 412 - Models of Practice

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. __Credit Hours: 3 hrs _Prerequisite: EDPS325 or IHHS260

## OCTH 419 - Programming I

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.
Credit Hours: 6 hrs Prerequisite:
OCTH412, OCTH495, OCTH500, OCTH502

## OCTH 420 - Level I Fieldwork I

Exploring the role of an occupational therapist in a clinical setting. __Credit Hours: 3 hrs

## OCTH 477 - Special Topics

Experimental courses or special topics in occupational therapy may be offered.
__Credit Hours: 1 hr _Prerequisite:
department permission

## OCTH 478 - Special Topics

Experimental courses or special topics in occupational therapy may be offered. Credit Hours: 2 hrs _Prerequisite: department permission

## OCTH 479 - Special Topics

Experimental courses or special topics in occupational therapy may be offered.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## OCTH 480 - Special Topics

Experimental courses or special topics in occupational therapy may be offered. Credit Hours: 4 hrs _Prerequisite: department permission

## OCTH 495 - Neurological Foundations of Human Occupation

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.
__Credit Hours: 3 hrs _Prerequisite:
ZOOL417; EDPS325 or IHHS260

## OCTH 497 - Independent Study

Independent work following an approved plan to develop knowledge in specialized areas. __Credit Hours: 1 hr _Prerequisite: department permission

## OCTH 498 - Independent Study

Independent work following an approved plan to develop knowledge in specialized areas. __Credit Hours: 2 hrs _Prerequisite: department permission

## OCTH 499 - Independent Study

Independent work following an approved plan to develop knowledge in specialized areas. __Credit Hours: 3 hrs _Prerequisite: department permission

## OCTH 500 - Philosophy of Occupational Therapy

Through readings and group experiences, the students will collectively develop an understanding of the philosophy of occupational therapy. This course includes observations in occupational therapy settings, analysis of experiences and examination of the documents of the profession to develop a view. __Credit Hours: 3 hrs _Prerequisite: admission to program _Notes: This is a graduate course in an undergraduate program.

OCTH 502 - Theory and Analysis of Occupation

Students will use laboratory, discussions, lecture, readings, observations and interviews as methods of learning about the science of occupation. This course places emphasis on the individual's experience of occupation, and the exploration of its personal, social and cultural meetings. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## OCTH 516 - Level I Community Fieldwork II

Students will complete a part-time fieldwork experience in a community agency. Fieldwork experiences will be accompanied by a seminar. _Credit Hours: 3 hrs _Prerequisite: OCTH502 and ZOOL417 _Notes: This is a graduate course in an undergraduate program.

## OCTH 517 - Level I Community Fieldwork II

Students will complete a part-time fieldwork experience in a community agency or in an occupational therapy setting. Students will also participate in a directed seminar.
_Credit Hours: 3 hours _Prerequisite:
OCTH516, OCTH640 and ZOOL417
_Corequisites: OCTH619 _Notes: This is a
graduate course in an undergraduate program.

## OCTH 519- Programming II

Students will have opportunities to learn methods of evaluating occupational performance issues present in selected conditions that affect individuals from adolescence to middle adulthood. The effect of environmental, cultural and social factors on occupational performance is emphasized. Students use critical thinking skills to develop intervention plans using theoretically sound techniques. _Credit Hours: 6 hrs _Prerequisite: OCTH419 and OCTH420; senior and master's students only _Corequisites: OCTH516 _Notes: This is a graduate course in an undergraduate program.

## OCTH 540 - Research Methods I

This course introduces students to research methods used in occupational therapy.
Students develop beginning skills in formulation of research questions, proposal
development, approaches to design and implementation, and dissemination of results. Students choose research advisers and begin to participate in research with their adviser.
Credit Hours: 3 hrs _Prerequisite: MATH360, MATH370, MATH571, MATH574, SOCL250, EDPS621 or EDPS651; junior, senior and master's students only _Notes: This is a graduate course in and undergraduate program.

## OCTH 588 - Fieldwork Level II: Clinical Skills

Students will be assigned to a 12 -week fieldwork experience designed to develop and refine clinical skills. This may be completed on a part-time or a full-time basis. __Credit Hours: 6 hrs _Prerequisite: completion of all academic work and faculty approval_Notes: This is a graduate course in an undergraduate program.

## OCTH 589 - Fieldwork Level II: Clinical Skills

Students will be assigned to a 12-week fieldwork experience designed to develop and refine clinical skills. This may be completed on a part-time or a full-time basis. __Credit Hours: 6 hrs _Prerequisite: completion of all academic work and faculty approval_Notes: This is a graduate course in and undergraduate program.

## OCTH 600 - Supervision and Professional Roles

This course covers the management of occupational therapy services in multiple environments. Students will learn grantwriting skills and complete a capstone project developing an OT program for use in a nontraditional setting. __Credit Hours: 3 hrs _Prerequisite: OCTH517 and OCTH619
_Notes: This is a graduate course in an undergraduate program.

## OCTH 619 - Programming III

Students will have the opportunity to learn methods of evaluating occupational performance issues that affect individuals from middle to older adulthood. The effect of environmental, cultural and social factors on occupational performance is emphasized.

Students use critical thinking skills to develop intervention plans using theoretically sound techniques. __Credit Hours: 6 hrs _Prerequisite: OCTH516 and OCTH519 _Corequisites: OCTH517. Master's students only

## OCTH 686-Culminating Project I

Under the direction of their research adviser, students will carry out a research project and develop beginning proficiency in proposal development and research skills. The completion of the project will occur in OCTH687.__Credit Hours: 3 hrs _Prerequisite: OCTH540 _Notes: This is a graduate course in an undergraduate program.

## OCTH 687-Culminating Project II

Under the direction of their research adviser, students will complete research projects begun in OCTH686 and disseminate their findings. This is the culminating project in the research sequence of the mater's of occupational therapy (MOT) degree. __Credit Hours: 3 hrs _Prerequisite: $\overline{\text { OCTH686 _Notes: This is a graduate course }}$ in an undergraduate program.

## OM 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## OM 178-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## OM 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## OM 277-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## OM 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## OM 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## OM 374 - Introduction to Operations Management

The major design, processes and control problems of operations management in manufacturing and service organizations. Topics include product or service design; facilities location and layout; productivity, including job design, standards and incentive plans; project management; materials management, including forecasting, purchasing and inventory control; operations control; quality assurance and control.
__Credit Hours: 3 hrs _Prerequisite: DS265

## OM 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## OM 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## OM 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## OM 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## OM 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs

## OM 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## OM 497 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student. __Credit Hours: 1 hr _Prerequisite: department permission

## OM 498 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas of special interest to the student. __Credit Hours: 2 hrs _Prerequisite: department permission

## OM 499 - Independent Study

Directed study in areas not provided in other course offerings, or advanced study in areas
of special interest to the student. __Credit Hours: 3 hrs _Prerequisite: department permission

## PC 185 - World of the Super Small

This course acquaints students with nanotechnology phenomena in basic science and engineering disciplines. The material presented broadly illustrates the diversity of nanoscale phenomena and how these phenomena impact our daily lives. A prime objective is to inseminate the ability to discuss and understand basic aspects of interesting "nano" phenomena. __Credit Hours: 3 hrs

## PC 203 - Miniaturization in Technology

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. __Credit Hours: 3 hrs

## PC 260 - Introduction to Coatings Science and Technology

The course is designed for the science and engineering undergraduates who want to gain basic understanding about the coatings. Coatings are used in myriad applications such as buildings, automobiles, industrial products, construction, electronics, etc. and fundamental knowledge of this interdisciplinary field is very useful to the future scientists and engineers. __Credit Hours: 3 hrs _Prerequisite: CHEM123/CHEM124, PHY222 and sophomore, junior or senior standing

## PC 310 - Polymers for Engineers and Technologists

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. __Credit Hours: 3 hrs
_Prerequisite: CHEM123/124 or department permission

## PC 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PC 387 - Cooperative Education in Interdisciplinary Technology

A minimum of three to four months of fulltime 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PC 400 - Polymers and Coatings Technology I

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, cellulosics. __Credit Hours: 3 hrs _Prerequisite: CHEM371/372

## Technology I Laboratory

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. __Credit Hours: 3 hrs _Corequisites: PC400

## PC 402 - Polymers and Coatings Technology II

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. __Credit Hours: 3 hrs _Prerequisite: PC400

## PC 403 - Polymers and Coatings Technology II Laboratory

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). __Credit Hours: 3 hrs _Corequisites: PC402

## PC 404 - Coatings Raw Materials

Coating industry is raw material intensive. Understanding of properties of coatings, their optimization and trouble shooting requires thorough knowledge about the raw materials used in coatings. This course provides basic understanding of chemistry and technology of different classes of raw materials used in formulations of coatings. __Credit Hours: 3 hrs _Prerequisite: CHEM123/CHEM124 and sophomore, junior or senior standing

## PC 405-Coating Processes I

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. __Credit Hours: 3 hrs _Prerequisite: PC310 or PC400 or department permission

## PC 406 - Colloids and Interfaces

The basics of surface and interfacial physical chemistry are presented and tied to the important elements of coating and dispersions technology. Surface tension, capillarity, thermodynamics, surface films on liquids, contact angles, wetting, detergency, friction, lubrication, electrical double layer, stabilization, comminution, dispersions, and emulsions are the main topics covered.
Credit Hours: 3 hrs _Prerequisite:
CHEM361 or department permission

## PC 407 - Coating Processes II

Process and equipment for coatings application, economic analysis of coating operations, paint defects and line design for productivity and energy conservation.
_Credit Hours: 3 hrs _Prerequisite: PC405 or department permission

## PC 408 - Patent Drafting and Prosecution

Elementary patent law, efficient methods of reviewing patents, careers in the patenting arena and learning technology from patent publications are discussed and illustrated. Technical writing skills for drafting patent applications and for partnering with patent attorneys in prosecuting patent applications are developed in homework and in-class workshop exercises. __Credit Hours: 3 hrs _Prerequisite: junior or senior standing

## PC 416 - Water-Based Coatings

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. __Credit Hours: 3 hrs _Prerequisite: PC310_Corequisites: PC400

## PC 460 - Advanced Coatings Topics

Development of in-depth formulating skills; new technology areas in coatings and
polymers. __Credit Hours: 3 hrs
_Prerequisite: PC402, PC403 or department permission

## PC 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## PC 478 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PC 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PC 487-Cooperative Education in Interdisciplinary Technology

A minimum of three to four months of fulltime 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PC 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## PC 498 - Independent Study

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. __Credit Hours: 2 hrs
_Prerequisite: department permission

## PC 499 - Independent Study

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. _Credit Hours: 3 hrs
Prerequisite: department permission

## PDD 101 - Introduction to Industrial Drawing

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. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course. _Notes: This course does not count toward a CAD/CAM major.

## PDD 103 - Introduction to Automation

An introduction to the technology of discrete parts manufacturing. Topics include the contemporary manufacturing environment, new and emerging technologies, humanmachine interfaces and human resource issues. Course includes field trips. _Credit Hours: 3 hrs

## PDD 111 - Materials

This course introduces students to the major categories of engineering materials. It focuses on selection, failure and degradation of metals, polymers, ceramics and composites.

## Credit Hours: 3 hrs

## PDD 122 - Engineering Graphics

An introductory product design course emphasizing the creation and documentation of drawings using software application packages. Some of the units of instruction include orthographic projection, dimensioning, threads, fasteners, tolerancing, gears, cams, sheet metal and weldments. The students in this course will be required to design simple mechanisms throughout the course.
__Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture and laboratory course. _Prerequisite: CADM101 or one year of high school drafting

## PDD 123 - Manufacturing Processes

An introduction and survey of manufacturing process and materials. Lecture, laboratory, and outside study assignments are an essential part of this course and are related to heat training, properties of materials, casting, forming, joining, survey of machines, tools, conventional and non-traditional machining, theory of metal removal, cutting tool geometry and materials, fixturing and measuring devices.

## Credit Hours: 4 hrs

## PDD 124 - Manufacturing Processes and Methods II

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. _Credit Hours: 3 hrs _Prerequisite: MATH107 or Level 4 math placement

PDD 140 - Science, Technology and People
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. _Credit Hours: 3 hrs

PDD 156 - Teamwork in Product Design and Development

An introduction to the formation and use of teams and the structures and tools utilized in the product design and development process. The course includes skills needed by individuals in order to be a part of a successful product design and development team. _Credit Hours: 3 hrs

## PDD 157 - Introduction to Product Design

Presents an in-depth study of structured product design processes and methods. Methods discussed include experiences with hands-on products, applications of contemporary technologies, realistic applications of mathematics and scientific principles, studies of systematic experimentation, exploration of the design methodology and decision making for real product development. __Credit Hours: 3 hrs

## PDD 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 1 hr _Prerequisite: department permission

## PDD 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PDD 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PDD 203 - Industrial Operation

A survey course in the practices of manufacturing organizations. Units include careers, regulatory agencies, facilities management, group technology, problem solving and quality decision-making.
_Credit Hours: 3 hrs

## PDD 212 - Molding Materials and Processes

A study of molded products: material properties and identification, processing techniques, and application of design to product manufacture. Lecture and laboratory course. __Credit Hours: 3 hrs _Prerequisite: PDD111 and PDD123

## PDD 215 - Machine Tool Metalworking

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. __Credit Hours: 3 hrs

## PDD 220 - Geometric Dimensioning and

## Tolerancing

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. __Credit Hours: 3 hrs _Prerequisite: PDD122 and PDD123

## PDD 224 - 3-D Solid Modeling

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. __Credit Hours: 3 hrs _Prerequisite: CADM223 and MFG124

## PDD 251 - Material Analysis and Testing

Study of the structure, characteristics, and working qualities of common industrial materials. Lecture and laboratory course. __Credit Hours: 3 hrs

## PDD 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PDD 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PDD 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PDD 306 - Plastic Processing

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. __Credit Hours: 3 hrs _Prerequisite: MFG111

## PDD 309-Molded Product Design

Principles of mold design for a variety of molded products. Topics include gating, venting, risering, parting, ejection, mold materials, machining, fabricating and testing. Lecture and laboratory course. __Credit Hours: 3 hrs _Prerequisite: PDD156, PDD157, PDD212, PDD220 and PDD224

## PDD 310 - Formed Product Design

Principles of tooling design for a variety of formed products. Topics include tooling for thermoforming, blow molding, stamping, hydroforming and other forming processes. Lecture and laboratory course. __Credit Hours: 3 hrs _Prerequisite: PDD156, PDD157, PDD212, PDD220, PDD224

## PDD 311 - Engineering Intellectual Property

Introduction to intellectual property as related
to the field of engineering. Topics include patents, copyrights, trademarks, trade secrets and intellectual property licensing. __Credit Hours: 3 hrs _Prerequisite: MFG203, sophomore standing

## PDD 316 - Concept Development Studio

A course in the generation, selection and testing of new and revised product concepts. Converting customer needs and specification into a set of product concepts from which the product development team will make a final selection. Includes the methods, processes and procedures for making sound decisions in a cross functional product team environment. __Credit Hours: 3 hrs _Prerequisite:
ART131, PDD156, PDD157, PDD220 and PDD224

## PDD 318 - Fluid Power

Industrial hydraulic and pneumatic power transmission. Emphasis is on components, system control techniques, logic, system analysis and design. Lecture and laboratory course. __Credit Hours: 3 hrs _Prerequisite: PHY221

## PDD 325 - Applied Statics and Strength of Materials

Students will understand the fundamentals of statics of mechanical body and system. This course is the study of elementary, analytical and practical approaches to the principles of physical concepts of static and strength materials. __Credit Hours: 3 hrs
_Lecture/Lab Hours: Lecture and laboratory course _Prerequisite: PHY221

## PDD 327 - Engineering Project Management

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.
__Credit Hours: 3 hrs _Prerequisite:
MFG203 and sophomore standing

## Management

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.
__Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course _Prerequisite: PDD224

## PDD 350 - Protyping

An introduction into the purpose, planning, construction and testing of protypes and their application to the product design and development process. Topics include: prototyping types and uses, principles, technologies, plans and reverse engineering.
__Credit Hours: 3 hrs _Lecture/Lab Hours:
Lecture and Laboratory Course _Prerequisite: PDD316

## PDD 361 - Computer Numerical Control

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. Computerassisted programming, APT, and CAD/CAM for 2-D machining is emphasized. Verification is accomplished by laboratory work. __Credit Hours: 3 hrs _Prerequisite: MATH107 or Level 6 math placement, MFG124 and CADM223

## PDD 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PDD 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PDD 379 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PDD 380 - Engineering Cost Estimating

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. __Credit Hours: 3 hrs _Prerequisite: MFG203 or PDD309, PDD310 and QUAL320

## PDD 387 - Cooperative Education in

 Manufacturing TechnologyIndustrial 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. Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Credit applicable to the major in industrial technology or industrial teacher education only. Offered on a credit/no-credit basis.

## PDD 387-Cooperative Education in Product Design and Development

Practical experience in industrial, business or government settings that provides job skills. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Offered on a credit/no-credit basis.

## PDD 411 - Plastics Fabricating and Decorating

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.
__Credit Hours: 3 hrs _Prerequisite: MFG306

## PDD 421 - Manufacturing Engineering Analysis

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. __Credit Hours: 3 hrs _Prerequisite: MFG316

## PDD 425 - Advanced Manufacturing Methods

The course emphasizes computerized methods of planning, material handling, machining cells and inspection. Lecture and laboratory course. __Credit Hours: 3 hrs _Prerequisite: MFG103, MFG123, MFG124, MFG203 and ELEC218

## PDD 432-3-D Modeling and Surfacing Techniques

Students learn and practice surface modeling techniques using a 3-D CAD surface modeling software application package and measurement data. Free form surface modeling techniques and scanned or digitized point data will be created to produce highquality surface models. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture and laboratory course _Prerequisite: PDD309, PDD310 and PDD350

## PDD 433 - Advanced Tool Development

This course will introduce students to the generation of tool paths for 2.5 and 3-axis milling and drilling application. This class, as a continuation of modeling, adds knowledge and experience related to product design, assembly modeling, master model concepts and basic NX CAM functionality.

Credit Hours: 3 hrs _Prerequisite: PDD309, PDD310 and PDD350

## PDD 435 - Finite Element Analysis

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 truss, beam, stress and strain problems by using FEA software packages. __Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture
and laboratory course _Prerequisite: PDD325

## PDD 450 - Lean Enterprise

Overview of lean philosophy and lean practices. Application of lean practices in manufacturing and service industries. Topics include by are not limited to standardized work, muda, kanban, 5S, jidoka, value stream mapping, JIT and Hoshin planning. __Credit Hours: 3 hrs _Prerequisite: MFG203 and sophomore standing

## PDD 470 - Integrated Product and Process Design

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.
__Credit Hours: 3 hrs _Prerequisite:
MFG316 or MFG327

## PDD 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PDD 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PDD 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PDD 487-Cooperative Education in Manufacturing Technology

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..
__Credit Hours: 3 hrs _Prerequisite:
MFG387 and department permission _Notes: Graded on a credit/no-credit basis

## PDD 491 - Computer-Aided Design Studio

The design studio will focus on the design and development of products in a teamwork environment using CAD/CAE tools. This is a comprehensive, capstone design project class for senior Product and Design Development majors. __Credit Hours: 3 hrs _Prerequisite: PDD435, PDD432 and PDD433

## PDD 492 - Product Realization Studio

This design studio will focus on the design and development of a product and the production system and enterprise for its manufacture. Students will work together in integrated teams and utilize complementary tools and skills to solve design, planning and production problems. __Credit Hours: 3 hrs _Prerequisite: PDD380 or MFG421

## PDD 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 1 hr _Notes: Offered on a credit/no-credit basis.

## PDD 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 2 hrs _Notes: Offered on a credit/no-credit basis.

## PDD 496 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company __Credit Hours: 3 hrs _Notes: Offered on a
credit/no-credit basis.

## PDD 497 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hr _Prerequisite: department permission

## PDD 498 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PDD 499 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PEGN 101 - Weight Control and Fitness

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. __Credit Hours: 2 hrs

## PEGN 102 - Aerobic Dance

A course in which the student can experience physical conditioning and fitness, utilizing dance and music as the medium for aerobic exercise. _Credit Hours: 1 hr

## PEGN 103 - Ballroom Dance

Students will learn theory, technique and beginning patterns in merengue, swing, fox trot, waltz, tango and ballrooming. __Credit Hours: 1 hr

## PEGN 104-Cardio Kickboxing

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. __Credit Hours: 1 hr

## PEGN 108 - Basketball

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. __Credit Hours: 1 hr

## PEGN 110 - Beginning Tae Kwon Do

An introductory course showing the various techniques used in the art of self-defense. Students learn discipline, self-confidence and a vigorous physical activity. __Credit Hours: 1 hr

## PEGN 111 - Volleyball

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. __Credit Hours: 1 hr

## PEGN 115-Karate

This is a beginner's course in the art of selfdefensive 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. __Credit Hours: 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. __Credit Hours: 1 hr

## PEGN 122 - Men's Gymnastics I

This is a basic men's gymnastic skills class, and an introduction to the sport of gymnastics. __Credit Hours: 1 hr

## PEGN 124 - Fitness Walking

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.
__Credit Hours: 1 hr

## PEGN 126 - Conditioning Activities

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. __Credit Hours: 1 hr

## PEGN 128 - Judo

A beginning course in the martial arts of judo. Students will learn its history, as well as being able to demonstrate the various techniques. __Credit Hours: 1 hr

## PEGN 130 - Assault and Rape Prevention

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. __Credit Hours: 1 hr

## PEGN 140 - Marching Band

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. __Credit Hours: 1 hr

## PEGN 142 - Racquetball and Paddleball

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.__Credit Hours: 1 hr

## PEGN 143 - Fencing

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. __Credit Hours: 1 hr

## PEGN 145-Cross-Country Skiing

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. __Credit Hours: 1 hr

## PEGN 146 - Beginning Snow Skiing

A class designed to provide instruction in the basic fundamentals of downhill snow skiing at a recreational level. __Credit Hours: 1 hr

## PEGN 148 - Tennis

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. __Credit Hours: 1 hr

## PEGN 149 - Badminton

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. __Credit Hours: 1 hr

PEGN 119 - Women's Gymnastics

## PEGN 150 - Golf

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. __Credit Hours: 1 hr

## PEGN 151 - Bowling

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. __Credit Hours: 1 hr

## PEGN 152 - Sailing

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.__Credit Hours: 1 hr

## PEGN 153 - Swimming

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.
__Credit Hours: 1 hr

## PEGN 171 - Nia

Nia is a holistic approach to lifestyle and fitness that blends movement principles from dance, healing and martial arts. It increases body awareness and enhances endurance, strength, flexibility and balance in body, mind, emotions and spirit. __Credit Hours: 1 hr

## PEGN 172 - Capoeira

This course will introduce students to the Afro-Brazilian martial art, Capoeira

Mandinga. Basic concepts of the movement, history and music of Capoeira will be presented with emphasis on the traditions that are followed within the martial art.
Calisthenics are necessary for effective class participation. $\qquad$ Credit Hours: 1 hr

## PEGN 177 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.

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\text { __Credit Hours: } 1 \text { hrs }
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## PEGN 178 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title __Credit Hours: 2 hrs

## PEGN 179 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title __Credit Hours: 3 hrs

## PEGN 180 - Yoga

This course is designed to teach the student the five key elements of yoga. It will include exercises, breathing, relaxation and meditation techniques. __Credit Hours: 1 hr

## PEGN 190 - Extramural Club Sports

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. __Credit Hours: 1 hr

## PEGN 193 - Swing Dance I

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. __Credit Hours: 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 assessment __Credit Hours: 1 hr

## PEGN 203 - Latin Dance

This course is designed to provide students with the technical and foundations in Latin dance. This is a beginning level course.
__Credit Hours: 1 hr

## PEGN 210 - Lifetime Wellness and Fitness

A lecture course covering the essential elements of wellness and fitness. The course is geared toward entering freshmen. __Credit Hours: 2 hrs

## PEGN 210L - Lifetime Wellness and Fitness

A lecture course covering the essential elements of wellness and fitness. The course is geared toward entering freshmen. __Credit Hours: 2 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## PEGN 211 - Intermediate Volleyball

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. __Credit Hours: 1 hr

## PEGN 215-Tai Chi

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. __Credit Hours: 1 hr

## PEGN 220 - Varsity Rifle Team

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. __Credit Hours: 1 hr

## PEGN 222 - Men's Gymnastics II

This is a continuation of the knowledge and skills learned in Gymnastic I, and applied to more advanced routines on the different apparatus. __Credit Hours: 1 hr

## PEGN 224 - Jogging

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 cardiorespiratory fitness. __Credit Hours: 1 hr

## PEGN 226 - Weight Training

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. __Credit Hours: 1 hr

## PEGN 229 - Varsity Soccer

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of soccer. Permission required.
__Credit Hours: 1 hr

## PEGN 230 - Varsity Cross Country

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. __Credit Hours: 1 hr

## PEGN 231 - Varsity Football

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of football. Permission required. __Credit Hours: 1 hr

## PEGN 232 - Varsity Basketball

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of basketball. Permission required. __Credit Hours: 1 hr

## PEGN 233 - Varsity Swimming

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of swimming. Permission required. __Credit Hours: 1 hr

## PEGN 234 - Varsity Gymnastics

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of gymnastics. Permission required. __Credit Hours: 1 hr

## PEGN 235 - Varsity Wrestling

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of wrestling. Permission required. __Credit Hours: 1 hr

## PEGN 236 - Varsity Track

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of track. Permission required.
__Credit Hours: 1 hr

## PEGN 237 - Varsity Baseball

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of baseball. Permission required.

## PEGN 238 - Varsity Golf

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of golf. Permission required.
__Credit Hours: 1 hr

## PEGN 239 - Varsity Tennis

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of tennis. Permission required. __Credit Hours: 1 hr

## PEGN 240 - Varsity Volleyball

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of volleyball. Permission required. __Credit Hours: 1 hr

## PEGN 242 - Varsity Softball

A planned program to teach and develop the advanced skills and strategies necessary for participation in the collegiate level competition of softball. Permission required. __Credit Hours: 1 hr

## PEGN 256 - Basic River Kayak

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. __Credit Hours: 1 hr

## PEGN 277 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.

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\text { __Credit Hours: } 1 \mathrm{hr}
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## PEGN 278 - Special Topics

A one-, two- or three-hour experimental
course of a subject to be listed by title.

## Credit Hours: 2 hrs

## PEGN 279 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.
__Credit Hours: 3 hrs

## PEGN 310 - Intermediate Tae Kwon Do

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. __Credit Hours: 1 hr

## PEGN 348 - Basic Scuba Diving

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. __Credit Hours: 1 hr

## PEGN 377 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.
__Credit Hours: 1 hr

## PEGN 378 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title. __Credit Hours: 2 hrs

## PEGN 379 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.
__Credit Hours: 3 hrs

## PEGN 477 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title. __Credit Hours: 1 hr

## PEGN 478 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title.

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\text { __Credit Hours: } 2 \text { hrs }
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## PEGN 479 - Special Topics

A one-, two- or three-hour experimental course of a subject to be listed by title. __Credit Hours: 3 hrs

## PEGN 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## PEGN 498 - Directed Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PEGN 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHED 100 - History and Foundations of Physical Education

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. __Credit Hours: 2 hrs

## PHED 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PHED 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHED 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHED 200 - Anatomy and Physiology

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. __Credit Hours: 5 hrs

## PHED 204 - Kinesiology (Biomechanics of Physical Activity)

A required class for sports medicine and physical education majors/minors to scientifically analyze the techniques involved in the performance of human movement skills. __Credit Hours: 3 hrs _Prerequisite:

PHED200 or SPMD201/ATTR201 and SPMD202/ATTR202

## PHED 209 - Bio-Fitness

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.
__Credit Hours: 2 hrs

## PHED 215 - Methods of Teaching Individual Sports

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. __Credit Hours: 3 hrs _Prerequisite: admission to the teacher education program

## PHED 217 - Methods of Teaching Team Sports

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. __Credit Hours: 3 hrs

## PHED 219 - Methods of Teaching

Rhythmic Activities, Fundamental Movement and Movement Education

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.

## Credit Hours: 3 hrs

## PHED 231 - Service Teaching

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. __Credit Hours: 1 hr

## PHED 233 - Service Teaching

For qualified students an additional opportunity to undertake an individualized program under the direction of a qualified faculty member. Permission required.
__Credit Hours: 1 hr

## PHED 257 - Physical Education for the Classroom Teacher

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.
__Credit Hours: 2 hrs _Prerequisite:
admission to the teacher education program

## PHED 260 - Motor Development

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. __Credit Hours: 2 hrs

## PHED 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PHED 278-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHED 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHED 282 - Perceptual-Motor Training

Planning and effecting gross motor activity programs for students with neurological dysfunction. Assessment procedures and activity sequences. Supervised field experiences required. __Credit Hours: 1 hr

## PHED 287 - Cooperative Education

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 3 hrs _Prerequisite: nine
credit hours in concentration, approval by Cooperative Education Office, and department permission

## PHED 300 - Physiology of Exercise

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. __Credit Hours: 4 hrs _Prerequisite: PHED200 or SPMD201/ATTR201 and
SPMD202/ATTR202 _Cross-Listed: This course is cross-listed with SPMD300

## PHED 305 - Practical Concepts of Conditioning

A practical experience in applying the concepts and theories of conditioning to inclass situations as well as coaching. Programs such as interval training will be designed and experienced by the student for use in a particular situation. __Credit Hours: 2 hrs

## PHED 312 - Athletic Training and Physiotherapy

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. __Credit Hours: 2 hrs

## PHED 313 - Methods of Teaching Gymnastics

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 gymnastics skills will be presented. __Credit Hours: 2 hrs _Prerequisite/Corequisite: PHED 204

## PHED 315-Methods of Teaching Conditioning Activities

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. __Credit Hours: 2 hrs _Corequisites: PHED300/SPMD300

## PHED 316 - Foundations of Coaching

Practical and scientific information necessary for the implementation of a successful coaching program. __Credit Hours: 2 hrs

## PHED 317 - Methods of Teaching Elementary Physical Education

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. __Credit Hours: 2 hrs _Prerequisite: PHED260

## PHED 319 - Methods of Teaching Aquatics

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 backstroke are studied to prepare students to teach swimming in physical education classes.
__Credit Hours: 2 hrs

## PHED 330 - Adapted Physical Education

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. __Credit Hours: 3 hrs _Prerequisite: PHED260

## PHED 331 - Service Teaching

Provides additional individual opportunities at an advanced level. Permission required. __Credit Hours: 1 hr

## PHED 333 - Service Teaching

For the advanced student who has shown some interest in undertaking a research project for professional development.
Permission required. __Credit Hours: 1 hr

## PHED 353 - American Red Cross Lifeguarding

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. __Credit Hours: 3 hrs

## PHED 354 - American Red Cross Water Safety Instructor

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.

Credit Hours: 2 hrs _Prerequisite: PEGN153 or instructor permission

## PHED 360 - Motor Learning

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. __Credit Hours: 3 hrs _Prerequisite: PHED260 or instructor permission

## PHED 370 - Physical Education Applied Technologies

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 WideWeb,lecture/demonstrations and handson experiences, students use and evaluate a variety of software applicable to school and nonschool settings. __Credit Hours: 2 hrs _Prerequisite: junior standing

## PHED 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PHED 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHED 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## Young Child

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. _Credit Hours: 3 hrs _Notes: No credit in PHED260.

## PHED 387 - Cooperative Education in Physical Education

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 3 hrs _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission

## PHED 388 - Assessment in Adapted Physical Education

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. __Credit Hours: 1 hr _Prerequisite: PHED330

## PHED 389 - Sport and Activity for the Disabled

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. __Credit Hours: 1 hr

## PHED 400 - Philosophical Aspects of Physical Education and Sport

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.
_Credit Hours: 2 hrs _Prerequisite:
PHIL100 and junior or senior standing

## PHED 400W - Philosophical Aspects of Physical Education and Sport

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
_Credit Hours: 3 hrs _Prerequisite:
_PHIL100 and junior or senior standing

## PHED 405 - Women in Sports

Patterns, problems, and conditions associated with women's sports involvement in selected world cultures; the sportswoman in American society. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST405

## PHED 415-Curriculum and Instruction in Physical Education

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. __Credit Hours: 3 hrs _Prerequisite: PHED260; admission to the teacher education program

## PHED 421 - Legal Aspects of Sport, Physical Education, and Recreation

Individual rights, due process, selected legal concepts and principles, liability, safe environments, risk management, contracts, insurance and other selected topics. __Credit Hours: 2 hrs _Prerequisite: senior standing

## Education

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.
__Credit Hours: 1 hr _Prerequisite:
PHED334

## PHED 454 - American Red Cross Lifeguard Instructor

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. __Credit Hours: 2 hrs _Prerequisite: PEGN353 or instructor permission

## PHED 470 - Assessment and Evaluation in Physical Education

The discriminating selection, administration, interpretation and use of standardized tests and measurements in physical education.
Entry into College of Education required. __Credit Hours: 2 hrs

## PHED 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHED 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHED 487-Cooperative Education in Physical Education

One semester of supervised work in concentration area. An evaluation is required at the end of the employment period.
__Credit Hours: 3 hrs _Prerequisite: nine credit hours in concentration, approval by Cooperative Education Office and department permission

## PHED 490 - Field Experience in Adapted Physical Education

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.
__Credit Hours: 4 hrs _Prerequisite:
department permission

## PHED 495 - Senior Seminar

A synthesis of educational theories presented in the undergraduate physical education program and the student teaching experience. __Credit Hours: 1 hr _Corequisites:
EDUC496 and EDUC497

## PHED 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## PHED 498 - Directed Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHED 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHIL 100-Introduction to Philosophy

An introduction to philosophy by the study of important philosophical thinkers, problems and methodologies. __Credit Hours: 3 hrs

## PHIL 110 - Philosophies of Life

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. __Credit Hours: 3 hrs

## PHIL 120 - Introduction to Critical Reasoning

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. __Credit Hours: 3 hrs

## PHIL 130-Introduction to Logic

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. __Credit Hours: 3 hrs

## PHIL 177-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## PHIL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## PHIL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied __Credit Hours: 3 hrs

## PHIL 181 - Logic and Model Theory

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. __Credit Hours: 3 hrs

## PHIL 212 - Philosophy of Art

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.

Credit Hours: 3 hrs

## PHIL 215 - Philosophy of Religion

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. __Credit Hours: 3 hrs

## PHIL 220 - Ethics

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. __Credit Hours: 3 hrs

## PHIL 221 - Business Ethics

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. __Credit Hours: 3 hrs
theories and critically examine controversial issues in medicine. __Credit Hours: 3 hrs

## PHIL 225 - Political Philosophy

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. __Credit Hours: 3 hrs

## PHIL 226-Feminist Theory

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST226

## PHIL 228 - Global Ethics

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. __Credit Hours: 3 hrs

## PHIL 260 - Existentialism

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. __Credit Hours: 3 hrs

## PHIL 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs

## PHIL 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## PHIL 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## PHIL 281 - Symbolic Logic

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. __Credit Hours: 3 hrs

## PHIL 291 - Introduction to Asian Philosophy

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._Credit Hours: 3 hrs

## PHIL 310-Aesthetics

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130

## PHIL 310W - Aesthetics

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: one
course in philosophy other than PHIL120 or PHIL130

## PHIL 325 - Theory of Knowledge

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

## PHIL 325W - Theory and Knowledge

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

PHIL 330 - History of Philosophy: Ancient
A study of important philosophical developments in western thought from the pre-Socratics through Aristotle. Covers the pre-Socratics, Socrates, Plato and Aristotle.
__Credit Hours: 3 hrs _Prerequisite: one
course in philosophy other than PHIL120 or PHIL130

## PHIL 330W - History of Ancient Philosophy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130

## PHIL 331 - History of Philosophy: Modern

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.
__Credit Hours: 3 hrs _Prerequisite: one
course in philosophy other than PHIL120 or PHIL130

## PHIL 331W - History of Modern Philosophy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130

## PHIL 332 - History of Philosophy: 19th Century

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

## PHIL 332W - 19th Century Philosophy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL330 or PHIL331

## PHIL 355 - Philosophy of Law

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? __Credit Hours: 3 hrs

## PHIL 355W - Philosophy of Law

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement. __Credit Hours: 3 hrs

## PHIL 370 - Philosophy and Narrative

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL232, PHIL260 or PHIL390

## PHIL 370W - Philosophy and Narrative

This course is offered as part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: one
course in philosophy other than PHIL120 or PHIL130; recommended: PHIL232, PHIL260 or PHIL390

## PHIL 375 - Metaphysics

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130

## PHIL 375W - Metaphysics

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130

## PHIL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PHIL 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHIL 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHIL 380 - Philosophy of Science

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL325

## PHIL 380W - Philosophy of Science

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL325

## PHIL 390 - Phenomenology

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. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL331 or PHIL260

## PHIL 390W - Phenomenology

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: one course in philosophy other than PHIL120 or PHIL130; recommended: PHIL331 or PHIL260

## PHIL 391 - Philosophy of Early China

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. __Credit Hours: 3 hrs

## PHIL 426-Topics in Gender and Philosophy

An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130 _CrossListed: This course cross-listed with WGST426

## PHIL 426W - Topics in Gender and Philosophy

This course is offered as a part of the General

Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130 _Cross-Listed: This course crosslisted with WGST426

## PHIL 442 - Philosophy of Mind

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. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130

## PHIL 442W - Philosophy of Mind

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here to see the course description. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130

## PHIL 460 - Philosophy of Language

An examination of the philosophically important aspects of language. Possible topics include theories of meaning, analysis of referring and predication, the relation between language and reality, analysis of vagueness and metaphor, the role of language in philosophical method, the relation between language and necessary truth. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy

## PHIL 460W - Philosophy of Language

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: two courses in philosophy

## PHIL 470 - Twentieth Century European Philosophy

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. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130; recommended: PHIL332, PHIL260 or PHIL390

## PHIL 470W - Twentieth Century European Philosophy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130; recommended: PHIL332, PHIL260 or PHIL390

## PHIL 471 - Early Analytic Philosophy

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 Wittergenstein. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy other than PHIL120 or PHIL130; recommended: PHIL331

## PHIL 471W - Early Analytic Philosophy

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite: two
courses in philosophy other than PHIL120 or
PHIL130; recommended: PHIL331

## PHIL 475 - Philosophy of Mathematics

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 mathematics.
Credit Hours: 3 hrs _Prerequisite:
PHIL130, PHIL181, or PHIL281 or department permission

## PHIL 475W - Philosophy of Mathematics

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description
Credit Hours: 3 hrs _Prerequisite:
PHIL130, PHIL181, or PHIL281 or department permission

## PHIL 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## PHIL 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHIL 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PHIL 497 - Independent Study

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.
_Credit Hours: 1 hr _Prerequisite:
department permission

## PHIL 498 - Independent Study

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.
Credit Hours: 2 hrs _Prerequisite:
department permission

## PHIL 499 - Independent Study

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission

## PHY 100 - Physics for Elementary Teachers

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. __Credit Hours: 3 hrs _Notes: Does not count toward a physics major or minor. Open only to students pursuing any curriculum for elementary teachers.

## PHY 101 - Physical Science in the Arts

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 demonstrate those principles. __Credit Hours: 4 hrs _Lecture/Lab Hours: Three lecture hours and one two-hour laboratory per week. _Notes: Does not count toward a physics major or minor.

## PHY 177 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: see department for prerequisites

## PHY 178 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: see department for prerequisites

## PHY 179 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: see department for prerequisites

## PHY 221 - Mechanics, Sound and Heat

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. __Credit Hours: 4 hrs _Prerequisite: (MATH105 or MATH119) and MATH107, with a C or better in each course; or MATH112; or MATH120

## PHY 222 - Electricity and Light

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. __Credit Hours: 4 hrs _Prerequisite: PHY221 or PHY223; (MATH105 or MATH119) and MATH107, with a C or better in each course; or MATH112; or MATH120

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.
__Credit Hours: 5 hrs _Lecture/Lab Hours:
Laboratory: two consecutive hours, one day per week. _Prerequisite: MATH120

## PHY 224 - Electricity and Light

A continuation of PHY223. Static and current electricity, magnetism and light. __Credit Hours: 5 hrs _Lecture/Lab Hours: Laboratory: two consecutive hours, one day per week. _Prerequisite: PHY223; MATH121

## PHY 229 - Strength and Elasticity of Materials

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.
_Credit Hours: 4 hrs _Lecture/Lab Hours:
Four lecture-recitation periods per week. Laboratory required. _Prerequisite: PHY223; MATH121

## PHY 230 - Engineering Dynamics

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. __Credit Hours: 4 hrs _Lecture/Lab Hours:
Four lecture-recitation periods per week.
_Prerequisite: PHY223; MATH121;

## MATH122

## PHY 277 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: see department for prerequisites

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. __Credit Hours: 2 hrs _Prerequisite: see department for prerequisites

## PHY 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: see department for prerequisites

## PHY 297 - Independent Study

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 1 hr _Prerequisite: approval by the faculty member and department permission

## PHY 311 - Teaching Elementary Physical Science

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. _Credit Hours: 3 hrs _Prerequisite: $\mathrm{PHY1} 00$

## PHY 312 - Electricity Experiments for Elementary Teachers

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. __Credit Hours: 3 hrs _Prerequisite: PHY100

## PHY 325-Methods of Teaching the Physical Sciences

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. __Credit Hours: 3 hrs _Prerequisite: CURR305 and junior standing or department permission; admission to the teacher education program

## PHY 330 - Intermediate Mechanics I

The statics and dynamics of a particle, projectiles with air resistance, central forces, dynamics of a system of particles, vibrational motion and pendulums. __Credit Hours: 3 hrs _Prerequisite: PHY224; MATH121; MATH122

## PHY 332 - Mechanics Laboratory

A laboratory course providing experimental studies in intermediate mechanics. __Credit Hours: 1 hr _Lecture/Lab Hours: Three hours of laboratory per week.
_Prerequisite/Corequisite: PHY330

## PHY 350 - Electricity and Magnetism I

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. __Credit Hours: 3 hrs _Prerequisite: PHY224; MATH223

## PHY 360 - Heat and Thermodynamics

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. __Credit Hours: 4 hrs _Prerequisite: PHY222 or PHY224; MATH223

## PHY 370 - Introduction to Modern Physics

An introduction to modern physics and relativity. The qualitative interpretation, according to the modern quantum theory, of experimental results in atomic and nuclear physics. __Credit Hours: 3 hrs _Prerequisite: MATH121; PHY222 or PHY224

## PHY 372 - Modern Physics Laboratory

A laboratory course providing experimental studies in such areas as late classical, relativistic, quantum, and nuclear physics.
Credit Hours: 1 hr _Lecture/Lab Hours:
Three hours of laboratory per week.
_Prerequisite/Corequisite: PHY370

## PHY 377 - Special Topics

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. _Credit Hours: 1 hr _Prerequisite: see department for prerequisites

## PHY 378 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: see department for prerequisites

## PHY 379 - Special Topics

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. _Credit Hours: 3 hrs _Prerequisite: see department for prerequisites

## PHY 387 - Cooperative Education in Physics

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. __Credit Hours: 3 hrs Prerequisite: junior standing; admittance by application only _Notes: Use toward a physics major or minor subject to department permission. Offered on a graded credit/no-credit basis

## PHY 390 - Physics Project

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHY 391 - Physics Project

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## PHY 397 - Independent Study

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 1 hr _Prerequisite: approval by the faculty member and department permission

## PHY 398 - Independent Study

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 2 hrs _Prerequisite: approval by the faculty member and department permission

Prerequisite: PHY330, MATH223

## PHY 399 - Independent Study

An intensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 3 hrs
_Prerequisite: approval by the faculty
member and department permission

## PHY 406 - Ethical Issues in Physics

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. __Credit Hours: 1 hr _Prerequisite: PHY224

## PHY 417 - Undergraduate Research

## Laboratory

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. __Credit Hours: 2 hrs _Prerequisite: department permission _Notes: Open to seniors nearing completion of a physics major.

## PHY 420 - Capstone Project

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. _Credit Hours: 3 hrs
_Prerequisite: (PHY230 or PHY330),
PHY360 and PHY370

## PHY 431 - Intermediate Mechanics II

A continuation of PHY330. Mechanics of a rigid body, generalized coordinates, the Lagrangian and Hamiltonian functions, relative motion. __Credit Hours: 3 hrs

## PHY 436 - Vibration and Sound

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Laboratory required. Laboratory meets once per week for three hours. _Prerequisite: PHY222 or PHY224; MATH223

## PHY 442 - Optics and Optics Laboratory

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Three hours of laboratory per week. _Prerequisite: PHY222 or PHY224; MATH121

## PHY 444 - Applied Optics

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. __Credit Hours: 2 hrs _Lecture/Lab Hours: Lecture: one hour per week. Laboratory: three consecutive hours per week. _Prerequisite: PHY224

## PHY 450 - Electricity and Magnetism II

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, dipoleradiation, LienardWiechert potentials, and radiation theory.

Credit Hours: 3 hrs _Prerequisite:
PHY350; MATH325

## PHY 452 - Electrical Measurements

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. __Credit Hours: 4 hrs _Lecture/Lab Hours: Laboratory: four consecutive hours, one day per week.
_Prerequisite: PHY221/PHY223 and
PHY222 or PHY224

## PHY 456 - Electronics for Scientists

Theory and application of passive and semiconductor circuit elements. Analog and digital circuit analysis and design problems. __Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: three hours per week. _Prerequisite: PHY222 or PHY224; MATH121

## PHY 458 - Electronic Devices for Scientists

Electronic devices used in electronic instruments: transistors, logic gates, and interface circuits. Interface techniques with applications to measurements. _Credit Hours: 4 hrs _Lecture/Lab Hours: Lecture: three hours per week. Laboratory: three hours per week. _Prerequisite: PHY456

## PHY 462 - Kinetic Theory and Statistical Mechanics

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. MaxwellBoltzman 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. __Credit Hours: 3 hrs _Prerequisite: PHY224; MATH223

Topics include basic nuclear structure, nuclear decay and radioactivity, nuclear reactions and particle physics. __Credit Hours: 3 hrs _Prerequisite: PHY370, MATH121

## PHY 475 - Introduction to Quantum Mechanics

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 Schroedinger and Heisenberg equations to elementary systems, Pauli's theory of electron spin. __Credit Hours: 3 hrs _Prerequisite: PHY370; MATH223

## PHY 477 - Special Topics

This special topics course will be used to teach aspects of physics at an advanced level that would not regularly be offered. __Credit Hours: 1 hr _Prerequisite: see department for prerequisites

## PHY 478 - Special Topics

This special topics course will be used to teach aspects of physics at an advanced level that would not regularly be offered. __Credit Hours: 2 hrs _Prerequisite: see department for prerequisites

## PHY 479 - Special Topics

This special topics course will be used to teach aspects of physics at an advanced level that would not regularly be offered. __Credit Hours: 3 hrs _Prerequisite: see department for prerequisites

## PHY 481 - Mathematical Physics

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. _Credit Hours: 3 hrs _Prerequisite: MATH325; PHY330

## PHY 485 - Fluid Dynamics

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. __Credit Hours: 3 hrs _Prerequisite: PHY230 or PHY330; PHY360

## PHY 487-Cooperative Education in Physics

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.. __Credit Hours: 3 hrs _Prerequisite: PHY387; admittance by application only _Notes: Use toward a physics major or minor subject to department permission. Offered on a graded credit/nocredit basis

## PHY 491 - Special Problems (Honors Courses)

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. __Credit Hours: 2 hrs _Prerequisite: 20 hours of physics, a B average in physics and department permission

## PHY 491 - Special Problems (Honors Courses)

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. __Credit Hours: 2 hrs _Prerequisite: 20 hours of physics, a B average in physics and department permission

## PHY 495 - Readings in Physics (Honors Course)

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. __Credit Hours: 1 hr _Prerequisite: 20 hours of physics and department permission

## PHY 497 - Independent Study - Physics

An extensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 1 hr _Prerequisite: approval by the faculty member and department permission

## PHY 498 - Independent Study - Physics

An extensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 2 hrs _Prerequisite: approval by the faculty member and department permission

## PHY 499 - Independent Study — Physics

An extensive study of a problem or group of problems under the direction of a department faculty member. __Credit Hours: 3 hrs _Prerequisite: approval by the faculty member and department permission

## PHY 590 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 1 hr _Notes: This is a graduate course in an undergraduate program.

## PHY 591 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## PHY 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## PLSC 112 - American Government

An overview of the structure and function of American national government, focusing on how government is designed, how individuals form and act on their political preferences, how these preferences are transmitted to government, and how government acts (and does not act) on what its citizens want. __Credit Hours: 3 hrs _Notes: Not open to those with credit in PLSC113.

## PLSC 113-American Government Honors

An enhanced overview of the structure and function of American national government, focusing on how government is designed, how individuals form and act on their political preferences, how these preferences are transmitted to government, and how government acts (and does not act) on what its citizens want. __Credit Hours: 3 hrs _Notes: Not open to those with credit in PLSC112.

## PLSC 120 - Global Issues

This course examines global concerns that transcend boundaries of local and national communities. It emphasizes global perspectives and approaches to analyzing and solving world problems. Each semester will focus on a particular contemporary global issue (such as terrorism, genocide, human rights, global gender issues, ethnic identity/conflict, migration, and democratization). _Credit Hours: 3 hrs
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. __Credit Hours: 1 hr

## PLSC 178 - Special Topics

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. __Credit Hours: 2 hrs

## PLSC 179 - Special Topics

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. __Credit Hours: 3 hrs

## PLSC 202 - State and Local Government

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. __Credit Hours: 3 hrs

## PLSC 210 - Introduction to Political Analysis

An introduction to techniques for using data to test a wide range of theories regarding how the political world operates. Focus is on building skill in using quantitative and qualitative techniques to understand political phenomena ranging from individual voting behavior to international cooperation and conflict. __Credit Hours: 3 hrs
analysis of diverse political systems, examining selected nation-states to identify and explain similarities and differences in regime types and patterns of politics. Also examines the interaction of global forces (such as colonialism, the Cold War, and global markets) with domestic social and political change. __Credit Hours: 3 hrs

## PLSC 212 - Introduction to International Politics

An introduction to major theories and approaches in the study of international relations. The course considers the character of the international system, causes of conflict and war, foreign policy decision-making, determinants of economic development, and global environmental degradation. It also examines current issues such as terrorism, the protection of human rights, and globalization.
__Credit Hours: 3 hrs

## PLSC 213 - Introduction to Political Thought

Fundamental concepts, language and arguments in Western political thought from the Classical to the contemporary post $9 / 11$ world will be analyzed focusing on the basic themes of: liberty, equality, justice, fairness, representation and authority. This course meets the GE Requirement in the Humanities as well as being one of the core courses for the major in Political Science, Public Law and Public Administration.
__Credit Hours: 3 hrs

## PLSC 215-Civil Rights and Liberties in a Diverse US

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.
__Credit Hours: 3 hrs

## PLSC 216-Municipal Government

A study of forms and functions of municipal
$\qquad$ Credit Hours: 2 hrs

## PLSC 221 - America at War: From Vietnam to Iraq

Course explores the causes and effects of recent U.S. military interventions from Vietnam to the present. Particular attention will be given to the development and features of the military industrial complex as well as comparison of the geopolitical and military strategies of the Cold War and the Global War on Terror.

Credit Hours: 3 hrs

PLSC 222 - War and Peace in the Nuclear Age

A study of the history of nuclear weapons strategy, arms control and disarmament since 1945; power in the international system; and the changing nature of conflict and peacekeeping in the post-Cold War era. __Credit Hours: 3 hrs

## PLSC 242 - Black Women: Politics and Racism

And 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 non-political realm when discussing groups traditionally marginalized or excluded from political life. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with AAS242.

## PLSC 243 - Black Women: Politics and

## Racism

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed

## PLSC 270 - Public Administration

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. __Credit Hours: 3 hrs

## PLSC 277 - Special Topics

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. __Credit Hours: 1 hr

## PLSC 278 - Special Topics

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. __Credit Hours: 2 hrs

## PLSC 279 - Special Topics

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. __Credit Hours: 3 hrs

## PLSC 297 - Independent Study

Approved studies on an individual basis in areas in which the department does not offer formal courses. __Credit Hours: 1 hr

## PLSC 298 - Independent Study

Approved studies on an individual basis in areas in which the department does not offer

## PLSC 299 - Independent Study

Approved studies on an individual basis in areas in which the department does not offer formal courses. __Credit Hours: 3 hrs

## PLSC 301 - American Legal System

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. __Credit Hours: 3 hrs

## PLSC 305 - Law and Policy in a Constitutional Democracy

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.
__Credit Hours: 3 hrs _Prerequisite: open to sophomores, juniors, seniors and postbaccalaureate students

## PLSC 306 - Contemporary Political Thought

An examination of $20^{\text {th }}$ and $21^{\text {st }}$ century political theories and ideologies around the world including: liberal democracy and its conservative critics; varieties of fascism, socialism and communism; globalization and its critics; national and ethnic ideologies; international religious fundamentalism; and global environmentalism. __Credit Hours: 3 hrs

## PLSC 307 - Democracy and Power

An analysis of citizen democracy and its relation to the power and legitimacy of governments around the world, both past and present, using classic writings, current journalistic and scholarly literature. The focus will be on: the scope and limits of governmental power; socio-economic, racial,
gender and regional inequalities; and challenges to democratic politics in time of war, mass media and virtual communication.

Credit Hours: 3 hrs

## PLSC 308 - Political Violence and Revolution

Examines political violence and revolution in comparative and international perspective. Considers theories and cases of structural violence rooted in social injustice; diverse forms and motives of political violence (such as war, rebellion, terrorism, ethnic conflict, national liberation); patterns and cycles of violence and non-violent alternatives; and the dynamics of revolution. __Credit Hours: 3 hrs

## PLSC 310 - Methods of Political Research

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. __Credit Hours: 3 hrs _Prerequisite: PLSC210

## PLSC 311 - Politics of the Developing World

An examination of politics in developing countries, highlighting the relation between economic development and social/political change. The course investigates the colonial legacy and contemporary sociopolitical conditions, focusing on themes such as race/ethnicity and religion, gender, social polarization, role of the military, nationalisms, democratization, states and markets, globalization. __Credit Hours: 3 hrs

## PLSC 312 - Constitutional Law:

## Institutions and Process

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. __Credit Hours: 3 hrs

## PLSC 313 - Constitutional Law: Civil Rights and Liberties

This course focuses on the foundations, adoption and development of the US Constitution and its impact on the development of civil rights and liberties 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.
__Credit Hours: 3 hrs

## PLSC 314 - Civil Mock Trial and Legal Process

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. __Credit Hours: 3 hrs

## PLSC 315-Criminal Mock Trial and Legal Process

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. __Credit Hours: 3 hrs

## PLSC 317 - Political Science in Literature and Film

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. __Credit Hours: 3 hrs _Prerequisite: political science major or minor; at least nine hours of political science course work completed; junior or senior standing or department permission

## PLSC 327 - American Foreign Policy Process

This course explores the content and conduct of American foreign policy. It examines American foreign policy history, theories of decision making, foreign policy actors inside and outside government, as well as specific policy areas including national security, economic prosperity, the environment, and human rights. __Credit Hours: 3 hrs

## PLSC 330 - Urban Politics

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. _Credit Hours: 3 hrs

## PLSC 332 - Intergovernmental Relations and Federalism

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. __Credit Hours: 3 hrs

## PLSC 334 - Personnel Administration in Government

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. __Credit Hours: 3 hrs

## PLSC 334W - Personnel Administration in

 GovernmentThis course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs

## PLSC 335 - Labor in American Politics

An examination of the role played by American labor as a political pressure group and as an agent of voter mobilization; American labor voting patterns; the political impact of labor organization on the civil service; American role in international union affairs. __Credit Hours: 3 hrs

## PLSC 336 - Foundations of the U.S. Nonprofit Sector

This course provides students with a grounding in the historical and philosophical foundations of the nonprofit sector in American Society. Using and interdisciplinary approach, this course will help students understand the evolution of the nonprofi _t sector, its capacities and limitations, as well as its distinctiveness. __Credit Hours: 3 hrs

## PLSC 336 - Foundations of the U.S. Nonprofit Sector

This course provides students with a grounding in the historical and philosophical foundations of the nonprofit sector in American Society. Using and interdisciplinary approach, this course will help students understand the evolution of the nonprofit sector, its capacities and limitations, as well as its distinctiveness.
__Credit Hours: 3 hrs

## PLSC 341 - International Law

A study of the development of international law and world society over time. Examinations of the effect of treaties, customary law, and equity on the role of the United Nations Security Council, international courts, human rights, the law of the sea, war crimes, and other selected topics.

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## PLSC 342 - International Organizations

The theory and practice of various types of international organizations (including intergovernmental and nongovernmental). Examines their efforts to create collective solutions to problems such as security, human rights and humanitarian issues, environmental and resource challenges, and global economic governance. __Credit Hours: 3 hrs

## PLSC 343 - Model United Nations

Explores the structure and function of the United Nations in a changing global context. Course includes an in-depth simulation of varying countries and their positions, aims and role within the UN. Students learn about foreign policy analysis, multilateral diplomacy, international organizations, and contemporary global issues. __Credit Hours: 3 hrs _Notes: This course can be taken more than once. The second enrollment is PLSC 344.

## PLSC 343L - Model United Nations

Explores the structure and function of the United Nations in a changing global context. Course includes an in-depth simulation of varying countries and their positions, aims and role within the UN. Students learn about foreign policy analysis, multilateral diplomacy, international organizations, and contemporary global issues. __Credit Hours: 3 hrs _Notes: This course can be taken more than once. The second enrollment is PLSC 344(L). This course will count as credit for Learning Beyond the Classroom.

## PLSC 344 - Model United Nations

Explores the structure and function of the United Nations in a changing global context. Course includes an in-depth simulation of varying countries and their positions, aims and role within the UN. Students learn about foreign policy analysis, multilateral diplomacy, international organizations, and contemporary global issues. __Credit Hours: 3 hrs

Explores the structure and function of the United Nations in a changing global context. Course includes an in-depth simulation of varying countries and their positions, aims and role within the UN. Students learn about foreign policy analysis, multilateral diplomacy, international organizations, and contemporary global issues. __Credit Hours: 3 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## PLSC 352 - Politics of Government Budgeting

An analysis of the political significance and the procedures of governmental budgeting in the United States. _Credit Hours: 3 hrs

## PLSC 354 - Government and Politics of Canada

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. __Credit Hours: 3 hrs

## PLSC 357 - Campaigns and Elections

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. __Credit Hours: 3 hrs

## PLSC 358 - Political Parties and Interest Groups

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. __Credit Hours: 3 hrs

PLSC 359 - Public Opinion and Political Learning

Examines how individuals form their political opinions and on how these opinions are measured (primarily through public opinion polling) and transmitted to government (primarily through elections). Considers the role public opinion plays in policy-making, and grapples with questions of the role it ought to play. __Credit Hours: 3 hrs

## PLSC 359W - Public Opinion and Political Learning

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs

## PLSC 361 - Russian Politics in Transition

Course explores the continuing political, economic, and social transformation of Russia, the largest and most powerful successor state of the Soviet Union. Current political patterns and trends are analyzed within the broader context of Russian and Soviet political history and compared to democratic transformations in other postcommunist states.

Credit Hours: 3 hrs

## PLSC 362 - Black Women: Religion and Sexism

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with AAS362/WGST362

## PLSC 364 - Legislative Process

A study of the agencies, procedures, and influences in the formation of public policy by Congress, state legislatures and administrative agencies. Credit Hours: 3

## hrs

## PLSC 365 - Women and Politics

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. _Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST365

## PLSC 367 - Latin American Politics

A study of patterns and selected cases in Latin American politics, with special attention to social movements and grassroots perspectives. Students develop a comparative framework for analyzing domestic and international forces affecting politics and regime change. Themes include neocolonialism, authoritarianism and democracy, reform and revolution, indigenous and women's movements, globalization.
_Credit Hours: 3 hrs

## PLSC 371 - Government and Politics of the Middle East

The course focuses on the politics of several countries of the Middle East, devoting particular attention to the Arab- Israeli conflict, Iran's nuclear ambitions, the Israeli nuclear program, secularism, Al Qaeda and terrorism, and the meaning of jihad. __Credit Hours: 3 hrs

## PLSC 372 - Government and Politics of Sub-Saharan Africa

An approach to comparative politics through the examination of patterns of politics in Africa, including colonialism and decolonization, nationalist movements, ethnic conflict, transition to multiracial politics, challenges of state formation and regime change in sub-Saharan Africa. __Credit Hours: 3 hrs

A study of the politics of Asia, including various regime types (such as liberal democratic, communist, and authoritarian capitalist). Comparative analysis will include themes such as political culture and ideology, political history, and changing roles of Asian countries in global politics and international political economy. __Credit Hours: 3 hrs

## PLSC 377 - Special Topics

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. __Credit Hours: 1 hr

## PLSC 377 - Special Topics

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. __Credit Hours: 1 hr

## PLSC 378 - Special Topics

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. _Credit Hours: 2 hrs

## PLSC 378 - Special Topics

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. _Credit Hours: 2 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. __Credit Hours: 3 hrs

## PLSC 379 - Special Topics

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. __Credit Hours: 3 hrs

## PLSC 380 - American Presidency

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. __Credit Hours: 3 hrs

## PLSC 381 - Public Policy Analysis

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. __Credit Hours: 3 hrs

## PLSC 382 - Politics and the 21st Century

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 sociopolitical and technological change. __Credit Hours: 3 hrs

## PLSC 385 - Judicial Process and Behavior

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. __Credit Hours: 3 hrs

## PLSC 386 - U.S. Supreme Court Simulation

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. __Credit Hours: 3 hrs _Prerequisite: junior standing and department permission

## PLSC 387 - Cooperative Education in Political Science

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. __Credit Hours: 3 hrs _Prerequisite: junior standing; major in political science, public administration or public law and government; departmental recommendation required _Notes: Applications of credit toward political science programs subject to department approval. Graded on a credit/no-credit basis.

## PLSC 390 - Poverty, Human Rights and Health

This interdisciplinary course examines international connections between poverty, human rights, and health, focusing on how social/ political structures and public policies affect human wellbeing. Prerequisite for PLSC/HLAD 391, experiential learning through a class trip to a developing country to meet community organizers and policy specialists working on poverty and health issues. __Credit Hours: 3 hrs _Prerequisite: sophomore, junior or senior standing _CrossListed: This course is cross-listed with HLAD390.

PLSC 391 - Field Study: Global
Experience - Poverty, Human Rights and

## Health

Interdisciplinary course offering experiential learning through travel abroad to a developing country to meet community organizers and policy specialists working on poverty and health issues. Examines connections between poverty, human rights, and health, focusing on how social/ political structures and public policies affect human wellbeing.

Credit Hours: 3 hrs _Prerequisite: PLSC/HLAD 390. and sophomore, junior or senior standing

## PLSC 412 - Comparative Legal Systems

An analysis of the issues involved in comparing and contrasting legal systems around the world. Specific attention will be focused on institutional structure and sources of law examined against the historical background in which these laws and institutions were formed. Select legal systems will be compared and contrasted for illustration. __Credit Hours: 3 hrs

## PLSC 412W - Comparative Legal Systems

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs

## PLSC 422 - American Political Theory

A concise survey of American political thought. The origins, growth and present state of American political ideologies will be examined. __Credit Hours: 3 hrs

## PLSC 431 - Theories of Public Organization

An introduction to theories of organization as related to public bureaucracies in a democratic political context. __Credit Hours: 3 hrs _Prerequisite: PLSC270

## PLSC 431W - Theories of Political Organizations

This course is offered as a part of the General

Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: PLSC270

## PLSC 434 - Nonprofit Board Development

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. __Credit Hours: 3 hrs

## PLSC 435 - Nonprofit Management and Leadership

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. __Credit Hours: 3 hrs

## PLSC 450 - Managing Public Safety Agencies

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. __Credit Hours: 3 hrs _Prerequisite: PLSC431

## PLSC 451 - Seminar in Public Safety

 AdministrationA 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. __Credit Hours: 3 hrs

## PLSC 456-Criminal Law I

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. __Credit Hours: 3 hrs

## PLSC 462 - Russian Foreign Relations

An examination of Russia's international relations and foreign policy from the tsarist period to the present. Particular attention is given to how Russia's turbulent domestic politics shapes its foreign policy and international behavior, Russia's contemporary international role, its relations with other post-Soviet states, and interactions with major powers, including the U.S.
__Credit Hours: 3 hrs

## PLSC 467 - Advanced International Relations

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. __Credit Hours: 3 hrs _Prerequisite: PLSC212

## PLSC 470 - Seminar in Political Science

Examination and utilization of research techniques in the preparation of a major seminar paper in political science, public administration or public law and government. __Credit Hours: 3 hrs

## PLSC 477 - Special Topics

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. __Credit Hours: 1 hr

## PLSC 478 - Special Topics

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 __Credit Hours: 2 hrs

## PLSC 479 - Special Topics

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 __Credit Hours: 3 hrs

## PLSC 480 - Field Seminar in Political Science/Public Administration

Designed to help students relate their field experience to some aspect of political science or public administration. __Credit Hours: 3 hrs _Prerequisite: department permission

## PLSC 486 - Internship in Political Science/Public Administration

Extends classroom learning through practical experience with legislative, administrative, and other public-sector agencies at all levels of government.. __Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Open to majors and minors in political science and public administration

## PLSC 487 - Cooperative Education in Political Science

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. __Credit Hours: 3 hrs _Prerequisite: senior standing, PLSC387 or departmental recommendation required _Notes: Applications of credit
toward political science programs subject to department approval. Graded on a credit/nocredit basis.

## PLSC 488 - Internship in Political Science/Public Administration

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. Credit Hours: 6 hrs _Prerequisite: department permission

## PLSC 489 - Internship in Political Science/Public Administration

Extends classroom learning through practical experience with legislative, administrative, and other public-sector agencies at all levels of government. __Credit Hours: 9 hrs _Prerequisite: department permission _Notes: Open to majors and minors in political science and public administration.

## PLSC 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer formal courses. __Credit Hours: 1 hrs _Prerequisite: senior standing and department permission _Notes: Normally restricted to political science majors.

## PLSC 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer formal courses. __Credit Hours: 2 hrs _Prerequisite: senior standing and department permission _Notes: Normally restricted to political science majors.

## PLSC 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer formal courses. __Credit Hours: 3 hrs _Prerequisite: senior standing and department permission _Notes: Normally restricted to political science majors.

## PS 177-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PS 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PS 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PS 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PS 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hrs _Prerequisite: department permission

## PS 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## PS 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## PS 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## PS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PS 379- Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PS 387-Co-operative Education

Credit Hours: 3 hrs

## PS 442 - School Safety - Emergency Planning/Incident Command

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. __Credit Hours: 3 hrs

## PS 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## PS 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## PS 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## PS 487-Co-operative Education

Credit Hours: 3 hrs

## PS 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

## PS 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## PSCI 110 - The Science of Everyday Life

This course is designed to give students a background in the principles of physics as applied to everyday living - a qualitative discussion of the key physical principles and how they relate to modern living and
informed decisions about science and society. The laboratory experiments are hands-on experiences to provide evidence in support of underlying physical principles. __Credit Hours: 4 hrs _Lecture/Lab Hours: Four lecture hours and one one-hour laboratory. _Notes: Does not count toward a physics major or minor.

## PSCI 270 - Relativity, Atomic and Nuclear Physics

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. __Credit Hours: 3 hrs _Prerequisite: PHY222 or PHY224

## PSCI 305 - Energy and Society

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. __Credit Hours: 3 hrs _Prerequisite: PHY222 or PHY224

## PSCI 309 - Thermal Science and Heat Transfer

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, $\mathrm{P}-\mathrm{V}$ 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. __Credit Hours: 3 hrs _Prerequisite: PHY222 or PHY224

## Astronomy for Teachers

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. __Credit Hours: 3 hrs _Prerequisite: PHY222 or PHY224 and ASTR205

## PSI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr
_Prerequisite: department permission

## PSY 101 - General Psychology Lecture

Principles, theories and methods evolving from the scientific analysis of behavior. PSY103 must be completed in addition to PSY101 to satisfy four credits of the Knowledge of the Disciplines - Natural Science portion of the General Education program.
__Credit Hours: 3 hrs _Lecture/Lab Hours: Lecture: three hours per week

## PSY 103 - General Psychology Laboratory

Laboratory demonstrations and experiments illustrating concepts presented in PSY101 lectures. PSY101 must be completed in addition to PSY103 to satisfy four credit hours of the Knowledge of the Disciplines Natural Science portion of the General Education program.

Credit Hours: 1 hr _Lecture/Lab Hours: Laboratory: two hours per week _Prerequisite/Corequisite: PSY101

## PSY 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: PSY101 or PSY102 and department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: PSY101 or PSY102 and department permission

## PSY 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: PSY101 or PSY102 and department permission

## PSY 203 - Self-analysis and Control

Behavioral principles and techniques that can be applied to behavioral self-analysis and self-management. Student-initiated selfimprovement projects encouraged. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 205-Quantitative Methods in

## Psychology

Basic concepts and methods used in the analysis of psychological data. Methods of describing and drawing inferences from sets of data. __Credit Hours: 3 hrs _Prerequisite: 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).

## PSY 207 - Psychology of Adjustment

Systematic presentation of issues, concepts, principles and theories of human adjustment.

Credit Hours: 3 hrs _Prerequisite:
PSY101/102

## PSY 225 - Psychology of Religion

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. __Credit Hours: 3 hrs

## PSY 240 - Psychology of Sex

Survey of the psychological research concerned with human sexuality from a psychological point of view with an emphasis on research findings. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 242 - Psychology of Women

Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 _Cross-Listed: This course is cross-listed with WGST242

## PSY 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: PSY101/102 and department permission

## PSY 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: PSY101/102 and department permission

## PSY 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and department permission

## PSY 301 - Introductory Experimental Psychology

Design, control and measurement techniques employed in the scientific investigation of behavior; e.g., motivation, emotion, perception and learning. __Credit Hours: 4 hrs _Prerequisite: PSY205

## PSY 301W - Introductory Experimental Psychology

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 4 hrs _Prerequisite: PSY205
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## PSY 304 - Learning

Includes learning theories and empirical research as developed by Pavlov, Thorndike, Guthrie, Tolman, Hull, Skinner, Mowrer and others, plus select contemporary topics.
__Credit Hours: 3 hrs _Prerequisite: PSY301

## PSY 309 - Social Psychology

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 Hours: 3 hrs _Prerequisite: PSY101/102 _Notes: Not open to those with credit in SOCL308.

## PSY 321 - Child Psychology

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 322 - Psychology of Adolescence

An opportunity to formulate, examine and understand a comprehensive, balanced picture of the physical, mental, emotional, social, and ideological developments and adjustments during adolescence. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

PSY 323 - Psychology of Human Aging

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.__Credit Hours: 3 hrs _Prerequisite: PSY101 or PSY102; junior or senior standing or second bachelor's only

## PSY 340 - Psychological Perspectives on Prejudice and Discrimination

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and sophomore standing

## PSY 350 - Environmental Psychology

The psychological effects of various environmental settings and configurations on human behavior. Select qualities of architectural spaces, urban environments and natural settings. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 351 - Industrial Psychology

Applications of psychological methods and principles to industrial problems. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and junior or senior standing

## PSY 356 - Motivation and Emotion

Review and analysis of theory and research in the areas of motivation and emotion.
__Credit Hours: 3 hrs _Prerequisite: PSY301

## PSY 357 - Sensation and Perception

Analysis of the psychological literature relating to sensory and perceptual experience. __Credit Hours: 3 hrs _Prerequisite: PSY301

## PSY 358-Cognitive Processes

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 360 - Abnormal Psychology

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 361 - Psychotherapy

Survey of therapeutic systems and research on psychotherapy. __Credit Hours: 3 hrs _Prerequisite: PSY360

## PSY 362 - The Psychology of Stress and

## Relaxation

An introduction to the theoretical aspects of stress, stress reactions, stress assessment, and stress management and prevention. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 365 - Behavior Modification

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 366 - Health Psychology/Behavioral Medicine

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. __Credit Hours: 3 hrs _Prerequisite: PSY101/102

## PSY 377 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: PSY101/102 and department permission

## PSY 378-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: PSY101/102 and department permission

## PSY 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and department permission

## PSY 387 - Cooperative Education in

 PsychologyFour 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.
__Credit Hours: 3 hrs _Prerequisite: two 300level psychology courses and department permission

## PSY 388 - Psychology in the Field Setting

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. __Credit Hours: 2 hrs _Prerequisite: PSY101/102, concurrent enrollment in a three-hour psychology class and/or department permission

## PSY 397 - Individual Reading in Psychology

Supervised reading on psychological problems. __Credit Hours: 1 hr _Prerequisite: PSY101/102 and prior department approval

## PSY 398 - Individual Reading in

## Psychology

Supervised reading on psychological problems. __Credit Hours: 2 hrs _Prerequisite: PSY101/102 and prior department approval of a planned reading program

## PSY 399 - Individual Reading in Psychology

Supervised reading on psychological problems. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and prior department approval of a planned reading program

## PSY 445 - Consumer Psychology

A survey of psychological principles, theories and methodology relating to consumer behavior. __Credit Hours: 2 hrs _Prerequisite: PSY101/102

## PSY 448 - Seminar in Psychology

A synthesis of various approaches to the study of psychology. Development, presentation, and critical appraisal of individual student projects. __Credit Hours: 2 hrs _Notes: Open to seniors with a psychology major or minor.

## PSY 451 - Dynamics of Personality

Physiological, psychological and cultural determinants of human personality; analysis of select theories of human personality. __Credit Hours: 3 hrs _Prerequisite: PSY101/102; junior or senior standing or second bachelor's only

## PSY 453 - History and Systems of Psychology

Historical development of modern psychological theories; contemporary systems, including functionalism, behaviorism, phenomenology, psychoanalysis and dynamic psychologies.
__Credit Hours: 3 hrs _Prerequisite:

PSY101/102 and PSY301; junior or senior standing or second bachelor's only

## PSY 457 - Physiological Psychology

Analysis of the relationships among brain functions, physiological processes and behavior. Open to junior and senior science majors with department permission. __Credit Hours: 3 hrs _Prerequisite: PSY301; recommended: BIOL105 or ZOOL140

## PSY 458 - Comparative Animal Behavior

Modern solutions to the innate versus learned behavior controversy; species differences with respect to behavior and behavioral capacities. __Credit Hours: 3 hrs _Prerequisite: PSY301

## PSY 460 - Psychology of Film

The psychology of film and audience. Viewer psychology, presentation of psychology, family, violence and sexuality in film. _Credit Hours: 3 hrs _Prerequisite: junior standing and/or two courses in psychology

## PSY 477 - Special Topics

An examination of topics in psychology not covered in other department offerings. May be elected more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: PSY101/102 and department permission

## PSY 478 - Special Topics

An examination of topics in psychology not covered in other department offerings. May be elected more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: PSY101/102 and department permission

## PSY 479 - Special Topics

An examination of topics in psychology not covered in other department offerings. May be elected more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: PSY101/102 and department permission

## PSY 487 - Cooperative Education in Psychology

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. __Credit Hours: 3 hrs _Prerequisite: PSY387 and department permission

## PSY 497 - Individual Research in Psychology

Supervised investigation of psychological problems. __Credit Hours: 1 hr _Prerequisite: department permission

## PSY 498 - Individual Research in Psychology

Supervised investigation of psychological problems. __Credit Hours: 2 hrs
_Prerequisite: department permission

## PSY 499 - Individual Research in Psychology

Supervised investigation of psychological problems. __Credit Hours: 3 hrs
_Prerequisite: department permission

## PSY 551 - Psychology of Death and Dying

Study of attitudes toward, theories about, and empirical data concerning human mortality and suicide and its relevance to life adjustment, aging, religion and other areas. __Credit Hours: 2 hrs _Notes: This is a graduate course in an undergraduate program.

## PSY 590 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
__Credit Hours: 1 hr _Notes: This is a
Graduate course in an Undergraduate
program.
2 hrs _Prerequisite: department permission

## PSY 591 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. Credit Hours: 2 hrs _Notes: This is a Graduate course in an Undergraduate program.

## PSY 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program.
_Credit Hours: 3 hrs _Notes: This is a
Graduate course in an Undergraduate program.

## PSY 592 - Special Topics

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times, provided different topics are covered. Not more than six hours of special topics may be used on a degree program. __Credit Hours: 3 hrs _Notes: This is a Graduate course in an Undergraduate program.

## QUAL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## QUAL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours:

## QUAL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## QUAL 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## QUAL 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## QUAL 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## QUAL 320 - Industrial Quality Control

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. __Credit Hours: 3 hrs _Prerequisite: MATH105

## QUAL 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## QUAL 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hr _Prerequisite: department permission

## QUAL 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## QUAL 387 - Cooperative Education in Quality Technology

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. Credit Hours: 3 hrs _Prerequisite: department permission _Notes: Offered on a credit/no-credit basis. Credit applicable to the major in industrial technology or industrial teacher education only.

## QUAL 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## QUAL 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## QUAL 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## Quality Technology

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.
_Credit Hours: 3 hrs _Prerequisite: QUAL387 and department permission _Notes: Graded on a credit/no-credit basis.

## QUAL 494 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 1 hr _Notes: Offered on a credit/no-credit basis

## QUAL 495 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 2 hrs _Notes: Offered on a credit/no-credit basis

## QUAL 496 - Industry-Based Special Topics

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. __Credit Hours: 3 hrs _Notes: Offered on a credit/no-credit basis

## QUAL 497 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 1 hr _Prerequisite: department permission

## QUAL 498 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 2 hrs _Prerequisite: department permission

## QUAL 499 - Independent Study

Available to selected students who have demonstrated ability to profit from a directedstudy 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. __Credit Hours: 3 hrs _Prerequisite: department permission

## RDNG 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## RDNG 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RDNG 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

RDNG 210 - Issues and Trends in Literacy Education

This course provides an overview of literacy education. Drawing from a variety of perspectives, including constructivist, sociolinguistic and psyholinguistic, students will survey the major trends and issues in literacy education and the research which supports them. __Credit Hours: 3 hrs

## RDNG 220 - Instructional Uses of Trade Books

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. __Credit Hours: 3 hrs _Prerequisite: CHL207

## RDNG 230 - Word Study in the Reading Program

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.
__Credit Hours: 3 hrs

## RDNG 240 - Reading and Writing Connections in the Elementary Grades

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. __Credit Hours: 3 hrs

## RDNG 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## RDNG 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RDNG 300 - Early Literacy

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. __Credit Hours: 3 hrs _Prerequisite: EDPS 322 Human Development and admission to the College of Education.

## RDNG 310 - Literacy Across the Curriculum in the Intermediate Grades

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. __Credit Hours: 3 hrs _Prerequisite: CURR304 and RDNG300

## RDNG 311 - Teaching Reading in the Secondary School

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. __Credit Hours: 3 hrs _Prerequisite: CURR305, PHED317, BMMT200, MUSC330, MUSC332 or TEDU350; admission to the teacher education program

## RDNG 330 - Reading and the Culturally and Linguistically Diverse Learner

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. __Credit Hours: 3 hrs _Prerequisite: RDNG230 and RDNG300

## RDNG 340 - Literacy Assessment in the Elementary Schools

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. __Credit Hours: 3 hrs _Prerequisite: RDNG300; EDPS340 or EDPS341

## RDNG 350 - Integrated Language Arts Instruction

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.
__Credit Hours: 3 hrs _Prerequisite:
RDNG300

## RDNG 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## RDNG 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RDNG 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

3 hrs _Prerequisite: department permission

## RDNG 400 - Program Development for Struggling Readers

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. __Credit Hours: 3 hrs _Prerequisite: RDNG340

## RDNG 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## RDNG 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RDNG 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RDNG 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hrs _Prerequisite: department permission

## RDNG 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## RDNG 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 3 hrs
_Prerequisite: department permission

## RECR 100 - Introduction to Recreation and Leisure

A basic overview of the field of recreation and leisure. Emphasizes the broad aspects of recreation and leisure as they relate to the delivery of human services. Includes history, philosophy, treads and job opportunities. Lecture, discussion, film and speakers from the field. $\qquad$ Credit Hours: 3 hrs

## RECR 100L - Introduction to Recreation and Leisure

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, treads and job opportunities. Lecture, discussion, film and speakers from the field. __Credit Hours: 3 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## RECR 110 - Rediscovering Your Creativity

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. _Credit Hours: 1 hr _Cross-Listed: This course is cross-listed with IHH110

## RECR 120 - Business Golf

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. __Credit Hours: 1 hr

## RECR 165 - Leisure Lifestyles

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 selfexploration. Helpful for majors in any discipline. __Credit Hours: 3 hrs

## RECR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## RECR 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RECR 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RECR 260 - Recreation Leadership

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. __Credit Hours: 3 hrs

## RECR 271 - Park Maintenance

This course will present material on the role of park maintenance in parks and open space areas; knowledge of the properties of soil for
development of parks and open spaces; the fundamentals of turf management and management of woody plants, as well as the maintenance of structures and trails for parks and open spaces scheduling, and safety and practice equipment. __Credit Hours: 3 hrs

## RECR 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## RECR 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RECR 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RECR 280 - Camping

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. __Credit Hours: 2 hrs

## RECR 280L - Camping

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. __Credit Hours: 2 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## RECR 290 - Practical Research in Recreation

Students learn and apply research methodology, design, sampling and measurement to solve problems related to the provision of social services. Students design data collection instruments, collect and code data. Data is analyzed using appropriate statistical techniques. Results are interpreted and a research report is submitted. __Credit Hours: 3 hrs _Prerequisite: MATH 105

## RECR 360 - Recreation Program Planning

This is an introductory course in planning and implementing recreation programs for diverse social and ethnic groups. In cooperation with a community service agency students plan, advertise, market, promote, implement, assess and evaluate the actual delivery of recreation program.
__Credit Hours: 3 hrs

## RECR 361 - Special Events in Recreation

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. __Credit Hours: 3 hrs _Prerequisite: RECR100 and RECR260

## RECR 370 - Leisure Facility Design and Management

This course is of interest to all students involved in managing a public facility. The course will cover information needed to plan, develop and coordinate a public facility. __Credit Hours: 3 hrs

## RECR 377 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## RECR 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RECR 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RECR 390 - Outdoor Recreation

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. __Credit Hours: 3 hrs

## RECR 450 - Park Planning and Design

This course focuses on history and purpose of park planning. Discussions will include the planning process, systems and site-level planning, use of recreation standards, and use of consultants. Reviewed are principles of site design and site plans. The lab will deal with maps and aerial photos, computer drawing. __Credit Hours: 3 hrs

## RECR 460 - Park and Recreation Administration

This course introduces students to organizational management approach and structures. Students learn how to design management objectives. Fundraising and fund development methods are presented. Volunteer program design is discussed. The course emphasizes marketing of leisure and
social services and pricing of products and services. Administrative responsibility and ethics are covered. __Credit Hours: 3 hrs

## RECR 465 - Park and Recreation Management

This course will present the philosophical stance of managers in directing nonprofit leisure service agencies; the problem solving process; policy development; and strategic planning for nonprofit leisure service agencies. Students will learn how to involve the public in management decision making.
__Credit Hours: 3 hrs

## RECR 471 - Contemporary Issues in Recreation

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. __Credit Hours: 3 hrs _Prerequisite: RECR100, RECR260 and RECR460

## RECR 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## RECR 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## RECR 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## RECR 481 - Adapted Aquatics

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.
_Credit Hours: 2 hrs

## RECR 489 - Recreation Practicum

A full-time, 15-week, 600-hour experience in a leisure services setting under a qualified recreation/leisure specialist and University supervisor. __Credit Hours: 8 hrs
_Prerequisite: 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

## RECR 497 - Directed Study

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. __Credit Hours: 1 hr

## RECR 498 - Directed Study

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. __Credit Hours: 2 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. __Credit Hours: 3 hrs

## SABR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SABR 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs

## SABR 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## SABR 277 - Special Topics

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. __Credit Hours: 1 hrs

## SABR 278 - Special Topics

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.__Credit Hours: 2 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. __Credit Hours: 3 hrs

## SABR 377 - Special Topics

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.
__Credit Hours: 1 hr

## SABR 378 - Special Topics

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.
__Credit Hours: 2 hrs

## SABR 379 - Special Topics

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.
__Credit Hours: 3 hrs

## SABR 477 - Special Topics

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.
__Credit Hours: 1 hrs

## SABR 478 - Special Topics

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.
__Credit Hours: 2 hrs

## SABR 479 - Special Topics

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.
__Credit Hours: 3 hrs

## SAG 105 - Introduction to Simulation, Animation and Gaming

This course will be an overview of the software and hardware associated with simulation and gaming. It will also explore the creativity and development skills necessary. It is an introductory overview of the electronic game development process and underlines its history, content creation strategies and future trends in the industry. __Credit Hours: 3 hrs

## SAG 175-Graphics for Simulation I

This course is an introduction to the development of graphics for simulation. Students will develop skills involved in the principle of realistic graphics from a variety of views. The main focus will be on the comprehension and creation of accurate 2dimensional graphics for use and development of 3-dimensional models.
__Credit Hours: 3 hrs

## SAG 225-Graphics for Simulation II

In this course, students continue their application of graphics for construction and refinement of 3-dimensional models to develop a variety of high quality 3dimensional objects. Students will develop a number of computer simulation applications using 3-dimensional graphic and beginning multimedia software.__Credit Hours: 3 hrs _Prerequisite: SAG175

## SAG 235 - Flash I

This course is an introduction to Flash software features. The main focus of the class will be on designing Flash projects, working with animation, creating interactive files and incorporating sound and video files. Students will be introduced to the techniques of optimization, publishing to the Web and ActionScript programming. __Credit Hours: 3 hrs _Prerequisite: CMT131

## SAG 245 - Story Development

This course examines how to create an engaging, effective story while relating the practical considerations of building a
simulation, animation or game. Emphasis will be placed on traditional narrative development as well as interactive design necessary for game development. Techniques such as storyboarding and flow-charting for interaction are introduced. __Credit Hours: 3 hrs _Prerequisite: ENGL121

## SAG 275 - Texturing and Mapping

This course focuses on learning the techniques and constraints used to create textures for 3-dimensional models and environments used in gaming and simulation. Through instruction and lab, this course provides basic principles, research tools, techniques and in-depth tutorials of texturing and mapping. __Credit Hours: 3 hrs _Prerequisite: CMT205

## SAG 285 - Studio I Simulation

This course is a practical survey covering the principles of simulation. Multimedia exercises are explored and students learn to use a variety of techniques to produce games and simulation situations using software, such as 3-D Max. Students will use their graphics skills to build 3-dimensional models and simulate them in different settings.
__Credit Hours: 3 hrs _Prerequisite: SAG225

## SAG 305-Environment Design

This course focuses on the creation of virtual spaces and environments that you move through in games or simulations. Through instruction and tutorials, this course introduces the techniques used for creating detailed interiors, landscapes, cityscapes and nature assets for those environments.
__Credit Hours: 3 hrs _Prerequisite: SAG285 and junior or senior level standing

## SAG 335 - Flash II

The focus of this class is a continued study of Flash. In this class, the students will learn important steps using the illustrative tools of the software. Topics include techniques for drawing photorealistic vector illustrations for game art. __Credit Hours: 3 hrs _Prerequisite: SAG235 and junior or senior standing

## SAG 355 - Lighting and Camera Techniques

This course covers the concepts, theoretical aspects and techniques necessary to create convincing digital lighting. Also covered are camera techniques to produce realistic and dramatic visual presentations and how to effectively utilize these in any simulation.
__Credit Hours: 3 hrs _Prerequisite: CMT205

## SAG 365 - Flash III

This class advances the student's skills with Flash by using ActionScript to produce interactive games. The coding covered are the principles of animation, math and physics concepts, interaction from input devices, data collection, render methods and sound effects. Students in this class will produce and publish an animated game. __Credit Hours: 3 hrs _Prerequisite: SAG335 and junior or senior standing

## SAG 375 - Studio II

A continued study of 3-dimensional graphics and multimedia software used for simulation. Students will advance their skills to create 3dimensional simulation models in different realistic environments. Topics covered in this hands-on course include creating natural elements and special effects such as fire, earth, air and water. __Credit Hours: 3 hrs _Prerequisite: SAG285 and junior or senior level standing

## SAG 470 - Simulation and Animation Dynamics

This course focuses on a host of constraints used to create accurate physical relationships between rigid-body and soft-body objects for simulations and animation. The techniques taught are used to create high-speed simulations with interactions between multiple objects with control over mass, friction and elasticity. __Credit Hours: 3 hrs _Prerequisite: PHY221 and junior or senior level standing

## SAG 485 - Senior Projects in SAG

The application of simulation, animation and gaming techniques for the completion of a
team based final project. Also covered will be a discussion of necessary skills for career success. Guest speakers and site visitations will be part of the class. __Credit Hours: 3 hrs _Prerequisite: SAG470 and junior or senior level standing _Cross-Listed: This course is cross-listed with COSC485.

## SCM 377 - Special Topics

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. __Credit Hours: 1 hr

## SCM 378 - Special Topics

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. __Credit Hours: 2 hrs

## SCM 379 - Special Topics

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. __Credit Hours: 3 hrs

## SCM 380 - Introduction to Supply Chain Management

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. __Credit Hours: 3 hrs
_Prerequisite: MKTG360 and POM374

## SCM 385-Logistics

Students will be introduced to the different components of logistics (transportation,
warehousing, material handling, orderprocessing, 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.
__Credit Hours: 3 hrs _Prerequisite: MKTG360

## SCM 386 - Purchasing and Supply Management

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.
_Credit Hours: 3 hrs _Prerequisite: junior standing

## SCM 420 - Operations Planning and Scheduling in Supply Chain

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. __Credit Hours: 3 hrs
_Prerequisite: POM374 and junior standing

## SCM 464 - Advanced Logistics

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. __Credit Hours: 3 hrs _Prerequisite: SCM385 and junior standing

SCM 465 - Global Supply Chain Management

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. __Credit Hours: 3 hrs _Prerequisite: SCM380 and IB210 and junior standing

## SCM 477 - Special Topics

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. __Credit Hours: 1 hr

## SCM 478 - Special Topics

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. __Credit Hours: 2 hrs

## SCM 479 - Special Topics

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. __Credit Hours: 3 hrs

## SCM 497 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 1 hr _Prerequisite: department permission and consent of instructor

## SCM 498 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social
foundations of education. __Credit Hours: 2 hrs _Prerequisite: department permission and consent of instructor

## SCM 499 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 3 hrs _Prerequisite: department permission and consent of instructor

## SET 102 - Global Product Design and Development

This course introduces students to three interlocking aspects of global product development: first, issues related to design and electronic transmission 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. __Credit Hours: 3 hrs

## SET 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs

## SET 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SET 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs
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. __Credit Hours: 1 hr

## SET 278 - Special Topics

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. __Credit Hours: 2 hrs

## SET 279 - Special Topics

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. __Credit Hours: 3 hrs

## SET 350 - Engineering Communication

A writing course that focuses on writing about scientific and technical topics. Students will develop their skills in presenting technical content accurately and efficiently. Credit Hours: 3 hrs _Prerequisite: ENGL121

## SET 350W - Engineering Communication

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. __Credit Hours: 3 hrs _Prerequisite: ENGL121 _

## SET 377 - Special Topics

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. __Credit Hours: 1 hr

## SET 378 - Special Topics

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. __Credit Hours: 2 hrs

## SET 379 - Special Topics

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. __Credit Hours: 3 hrs

## SET 477 - Special Topics

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. __Credit Hours: 1 hr

## SET 478 - Special Topics

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. __Credit Hours: 2 hrs

## SET 479 - Special Topics

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. __Credit Hours: 3 hrs

## SET 497 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 1 hr _Prerequisite: department permission and consent of instructor

## SET 277 - Special Topics

A single topic is covered each semester,

## SET 498 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 2
hrs _Prerequisite: department permission and consent of instructor

## SET 499 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 3 hrs _Prerequisite: department permission and consent of instructor

## SMGT 201 - Foundations of Sport Management

This course discusses the meaning of sport management in terms of its scope, principles, issues and future trends. In addition, this course examines the job responsibilities and competencies required of sport managers in a variety of sports or sports-related organizations in a hope to have the student become acquainted with the role of sport administrators and managers. Finally, this course provides the student with an overview of the different facets and career opportunities that are available in the field of sport management. __Credit Hours: 3 hrs

## SMGT 225 - Social Psychology of Sport

A required course for sport management majors which examines the psychological factors that influence sport performance. The student will learn the theories and practical applications of the factors that influence athletes and coaches, such as coaching leadership, efficacy beliefs within sport group contexts, morality in sport, the coach-athlete relationship, and team cohesion. __Credit Hours: 3 hrs _Prerequisite: SMDT201; PSY101; PSY102

## SMGT 325 - Sport Facilities

A required course for sport management majors which examines the planning and management of sport facilities. The course will focus on elements of planning, design and management, while examining functions related to maintenance, security, operations and evaluation. __Credit Hours: 3 hrs
_Prerequisite: SMGT201; SMGT255; junior and senior standing only

## SMGT 375 - Sport and Event Planning

This course offers and introduction to the planning, marketing, management and evaluation of sporting events. The course content will explore the theories and practices relevant to successful event planning for high school athletics, collegiate athletics, and other sporting events. __Credit Hours: 3 hrs _Prerequisite: SMGT201; SMGT255

## SMGT 385 - Introduction to Research in Sport Management

A course to teach students the research skills that can be applied to their professional careers. The student will be ale to effectively located research articles related to sport management, and understand how to apply the research to their professional careers.
Credit Hours: 3 hrs _Prerequisite:
SMGT201; SMGT255; junior or senior standing

## SMGT 425 - Diversity in Sport Organizations

A required course for sport management majors which examines diversity management strategies used by sport organizations. Students will learn how to design an effective diversity training program. __Credit Hours: 3 hrs _Prerequisite: SMGT201; SMGT255; junior or senior standing

## SMGT 445 - Sport Economics and Finance

Basic theory in economics and finance applied to managerial control of sport organizations. __Credit Hours: 3 hrs _Prerequisite: SMGT201; SMGT255; junior or senior standing

## SMGT 477 - Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations. __Credit Hours: 1 hr _Prerequisite: SMGT201; Candidacy and department permission; junior or senior standing only

## SMGT 478 - Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and or innovations. __Credit Hours: 2 hrs _Prerequisite: SMGT201; Candidacy and department permission; junior or senior standing

## SMGT 479-Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations. __Credit Hours: 3 hrs _Prerequisite: SMGT201; Candidacy and department permission; junior or senior standing

## SMGT 493 - Fieldwork in Sport Management I

This course provides students with real world experience in the area of sport management. Students will take this course before SMGT494 and SMGT495 for a total of 9 credits in three different sport management locations. __Credit Hours: 3 hrs _Prerequisite: SMGT201; Candidacy and department permission; at least sophomore standing

## SMGT 494 - Fieldwork in Sport Management

This course provides students with real world experience in the area of sport management. Students will take this course three times for a total of 9 credits in three different sport management locations. __Credit Hours: 3 hrs _Prerequisite: SMGT201; candidacy and department permission; at least sophomore standing

## SMGT 495 - Fieldwork in Sport Management

This course provides students with real world experience in the area of sport management. Students will take this course three times for a total of 9 credits in three different sport management locations. __Credit Hours: 3 hrs _Prerequisite: SMGT201; candidacy and department permission; at least sophomore standing

## SMGT 495 - Fieldwork in Sport

## Management

This course provides students with real world experience in the area of sport management. Students will take this course three times for a total of 9 credits in three different sport management locations.__Credit Hours: 3 hrs _Prerequisite: SMGT201; candidacy and department permission; at least sophomore standing

## SMGT 560 - Ethics in Sport Management

The purpose of this course is to provide students with an opportunity to reflect on and discuss ethical concerns in physical education and athletics. Topics will include ergogenic aids, competition vs. cooperation, commercialization, and youth sport. __Credit Hours: 3 hrs _Notes: This is a graduate course in an undergraduate program.

## SOCL 105 - Introductory Sociology

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. __Credit Hours: 3 hrs

## SOCL 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: SOCL105

## SOCL 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: SOCL105

## SOCL 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 202 - Social Problems

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 204 - Marriage and Family

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 208 - Minority Women in the United States

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.
Credit Hours: 3 hrs _Prerequisite:
SOCL105 _Cross-Listed: This course is cross-listed with ANTH2087/WGST208

## SOCL 214 - U.S. Racial and Cultural Minorities

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with ANTH214

SOCL 219 - Around the World in 80 Years: Adult Development Across Culture
Through the study of adult development, students will consider how the aging of the world's population is affecting diverse cultures, societies - and families - across the globe. Issues of social justice and empowerment related to population aging will addressed, particularly the social, economic, political and policy consequences.
__Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with ANTH219 and GERT219.

## SOCL 230 - Introduction to Applied Sociology

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

SOCL 250 - Quantitative Applications in Sociology

Introduction to the evaluation and interpretation of numerical and categorical data using descriptive and inferential statistical techniques. __Credit Hours: 3 hrs

## SOCL 277 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: SOCL105

## SOCL 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: SOCL105

## SOCL 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 303 - Sociology of Childhood and Youth

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. __Credit Hours: 3 hrs
_Prerequisite: SOCL105

## SOCL 304 - Methods in Sociological Research

Methods used in sociological research and their various applications. Participation in conducting a survey. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 306 - The Urban Community

Ecological and social organization of urban life. The metropolitan trend in the United States and the social problems created by it. Credit Hours: 3 hrs _Prerequisite:
SOCL105

## SOCL 307 - Sociology of the Workplace

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 308 - Social Psychology

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 Hours: 3 hrs _Prerequisite:
SOCL105 _Notes: Credit cannot be earned in both SOCL308 and PSY309.

## SOCL 309-Culture and Personality

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105 or ANTH135 _Notes: Not open to those with credit in ANTH309.

## SOCL 310 - Social Stratification

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 311 - Social Gerontology

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.
Credit Hours: 3 hrs _Prerequisite:
SOCL105

## SOCL 312 - Medical Sociology

Social behavior and social organization as factors in disease distribution. The sociological analysis of medical care, organization and practitioners. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 320 - Sociology of Religion

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. _Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 321 - Cooperation and Conflict in Society

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with CRMK321

## SOCL 333 - Violence and Society

An introduction to and survey of the multidisciplinary study of violence and society. Specifically examined are mass institutions of media, culture and identity formation. __Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with CRM333.

## SOCL 334 - Population

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 politicoeconomic implications; population theories and policies of population control. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 336 - Social and Cultural Change

A survey of the theories and problems of change as they affect at the global, national and subcultural levels. __Credit Hours: 3 hrs _Prerequisite: SOCL105 or ANTH135 _Notes: Not open to those with credit in ANTH336.

## SOCL 337 - Deviance and Society

An introduction to the scientific study of deviance, society's reaction to deviance and the social strategies for managing deviance.
__Credit Hours: 3 hrs _Prerequisite:
SOCL105 _Cross-Listed: This course is cross-listed with CRM337

## SOCL 338 - Women, Crime and Justice

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with WGST338/CRM338

## SOCL 339- Sociology of Love

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

SOCL 341 - Quantitative Methods of Social Research I

Examination and review of research methods in behavioral sciences and the nature of empirical data, organization of univariate and bivariate data. Credit Hours: 3 hrs
_Prerequisite: SOCL105 _Notes: Not open to those with credit in SOCL250 or SOCL304. Must be followed by SOCL342.

## SOCL 342-Quantitative Methods of Social Research II

Further review and applications of research methods and introduction to statistical inference. __Credit Hours: 3 hrs _Prerequisite: SOCL341 _Notes: Not open to those with credit in SOCL250 or SOCL304.

## SOCL 344 - Sociology of Gender

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. _Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed with WGST344.

## SOCL 345-Qualitative Methods

A review and examination of social-science research methods that entail fieldwork, participant observation, naturalistic experimentation and the analysis of cultural data. __Credit Hours: 3 hrs _Prerequisite: SOCL105 or ANTH135 or department permission _Notes: Not open to those with credit in ANTH345.

## SOCL 352 - Sociology of Education

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 375 - Political Sociology

The structure of political systems analyzed from an individual and social system perspective. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 387 - Cooperative Education in Sociology

Practical experience in industrial, business, or government settings to provide job skills..
__Credit Hours: 3 hrs _Prerequisite:
department permission _Notes: Offered on a credit/no-credit basis

## SOCL 402 - Group Dynamics

Structure and interaction processes of small groups. Cohesiveness, group standards, conformity and deviance, leadership, group emotion, communication, group roles and sociometrics. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 403 - Modern Sociological Theory

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.
Credit Hours: 3 hrs _Prerequisite:
SOCL105

SOCL 405 - Senior Seminar in Sociology
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. __Credit Hours: 3 hrs _Prerequisite: SOCL105; senior standing

## SOCL 412 - Law and Society

Law as a social and cultural product; the interrelationships between law and social institutions. __Credit Hours: 3 hrs _Prerequisite: SOCL105 _Cross-Listed: This course is cross-listed withCRM412 _Notes: Not open to those with credit in CRM412.

## SOCL 440 - Sociology of Technology

A study of social factors involved in the creation, innovation, distribution, evaluation and social effects of technology. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 448 - Collective Behavior

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. __Credit Hours: 3 hrs _Prerequisite:
SOCL105

## SOCL 450 - The Family

The family as a basic social institution. Various types of family systems throughout the world with special emphasis on the American family.__Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 451 - Sociology of Work and

 OccupationsSocial aspects of work. Recruitment, career
patterns, professionalization, sociology of the workplace and labor force. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 462 - Complex Organizations

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 465 - Sociology of Revolution

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.
Credit Hours: 3 hrs _Prerequisite:
SOCL105

## SOCL 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: SOCL105

## SOCL 477 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: SOCL105

## SOCL 478 - Special Topics

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. __Credit Hours: 2 hrs
_Prerequisite: SOCL105

## SOCL 479-Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105

## SOCL 487-Cooperative Education in Sociology

Practical experience in industrial, business, or government settings to provide job skills.
__Credit Hours: 3 hrs _Prerequisite: SOCL387/CRM387 _Notes: Offered on a credit/no-credit basis.

## SOCL 489 - Internship in Sociology

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. Credit Hours: 3 hrs _Prerequisite: SOCL105, senior standing in sociology and department permission

## SOCL 497 - Independent Study

Directed reading and research on problems within the field of sociology. __Credit Hours: 1 hr _Prerequisite: department permission

## SOCL 498 - Independent Study

Directed reading and research on problems within the field of sociology. __Credit Hours: 2 hrs _Prerequisite: department permission

## SOCL 499 - Independent Study

Directed reading and research on problems within the field of sociology. __Credit Hours:

3 hrs _Prerequisite: department permission

## SOFD 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SOFD 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SOFD 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SOFD 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SOFD 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SOFD 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

SOFD 328 - Schools for a Diverse and Democratic Society

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. __Credit Hours: 3 hrs _Prerequisite: EDPS322 or EDPS325; admission to the teacher education program

## SOFD 328W - Schools for a Diverse and Democratic Society

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs

## SOFD 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SOFD 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SOFD 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SOFD 477 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite:
department permission

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. __Credit Hours: 2 hrs _Prerequisite:
department permission

## SOFD 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## SOFD 497 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 1 hrs _Prerequisite: department permission and consent of instructor

## SOFD 498 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 2 hrs _Prerequisite: department permission and consent of instructor

## SOFD 499 - Independent Study

Intensive study of a problem or theory supervised by a faculty member in social foundations of education. __Credit Hours: 3 hrs _Prerequisite: department permission and consent of instructor

## SPCI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SPCI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:

2 hrs _Prerequisite: department permission

## SPCI 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPCI 240 - Preclinical Experiences Cognitive Impairment

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. __Credit Hours: 3 hrs

## SPCI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SPCI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPCI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPCI 350 - Introduction to Cognitive Impairment

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. __Credit Hours: 3 hrs _Prerequisite: SPGN251, PSY101

## SPCI 350L - Introduction to Cognitive Impairment

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. _Credit Hours: 3 hrs _Prerequisite: SPGN251, PSY101
_Notes: This course will count as credit for Learning Beyond the Classroom.

## SPCI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPCI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPCI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPCI 427 - Education of the Elementary Student with Cognitive Impairment

Development of programs, materials and instructional techniques appropriate to meet the needs of the child with cognitive impairment from birth to age 12. __Credit Hours: 2 hrs _Prerequisite: SPCI240, SPCI350 and admission to the teacher education program

## SPCI 429 - Education of Students in Programs for Mild Cognitive Impairment

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. __Credit Hours: 4 hrs _Prerequisite: SPCI240, SPCI350 and admission to the teacher education program

## SPCI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPCI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPCI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPCI 483 - Education of Students in Programs for Moderate or Severe Cognitive Impairment

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. __Credit Hours: 4 hrs _Prerequisite: SPGN2 $\overline{40}$, SPCI350 and SPGN 461 ; admission to the teacher education program

## SPCI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer
a formal course. _Credit Hours: 1 hr
_Prerequisite: department permission

## SPCI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## SPCI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## SPEI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SPEI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPEI 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPEI 240 - Pre-clinical Experiences Emotional Impairment

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.
__Credit Hours: 3 hrs

## SPEI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SPEI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPEI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPEI 301 - Children and Adolescents with

 Emotional ImpairmentThis 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.
Credit Hours: 4 hrs _Prerequisite:
SPEI240; SPGN251; not open to students on academic probation _Notes: Course available to Emotional Impairment majors only.

## SPEI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPEI 378 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPEI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPEI 401 - Programming, Methods and Curriculum for Elementary Students with Emotional Impairment

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. __Credit Hours: 4 hrs _Prerequisite: SPEI301, SPGN510 and admission to the College of Education _Notes: Course available to Emotional Impairment majors only.

## SPEI 401L - Programming, Methods and Curriculum for Elementary Students with Emotion Impairment

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.
__Credit Hours: 4 hrs _Prerequisite:
SPEI301, SPGN510 and admission to the
College of Education; Course available to Emotional Impairment majors only _Notes: This course will count as credit for Learning Beyond the Classroom.

## SPEI 449 - Beyond Behavior

An examination of systemic topics beyond the scope of the Individuals with Disabilities Education Act (IDEA) that impact the wellbeing of youth and adolescents with
emotional-behavioral impairments: social, cultural and environmental factors; home disruptions; internalized disorders; externalized disorders; and pervasive disorders.__Credit Hours: 3 hrs _Prerequisite: SPEI301; SPGN390; SPGN395; SPGN461 junior standing and admission to the College of Education _Notes: Course available to Emotional Impairment majors only.

## SPEI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPEI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## SPEI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPEI 488 - Curriculum, Methods and Programming for Secondary Students with Emotional Impairment

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.
__Credit Hours: 2 hrs

## SPEI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr

## SPEI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 2 hrs Prerequisite: department permission

## SPEI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## SPGN 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPGN 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 251 - Education of Students with Exceptionalities

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. Credit Hours: 3 hrs

## SPGN 271 - Speech and Language

 Development in Children, Adolescents and Young Adults with Exceptional Learning NeedsSpeech 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.
Credit Hours: 2 hrs _Notes: Required of all special education majors except speech and language impairment and hearing impaired, who must take SPSI337 Language Acquisition.

## SPGN 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPGN 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPGN 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 323 - Writing for Professionals in Special Education

Intermediate writing course to prepare students for professional writing in the field of special education. __Credit Hours: 3 hrs _Prerequisite: ENGL121, junior standing and admission to the special education program

## SPGN 323W - Writing for Professionals in

 Special EducationThis course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs

## SPGN 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## SPGN 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## SPGN 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 390 - Measurement and Diagnosis in Special Education

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. _Credit Hours: 3 hrs _Prerequisite: SPGN251; admission to the teacher education program

SPGN 395 - Children, Adolescents, and Young Adults with Disabilities: School,

## Family and Community Interaction

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.
Credit Hours: 3 hrs _Prerequisite:
SPGN251; admission to the teacher education program

SPGN 461 - Classroom Management and Intervention Strategies for Students with Disabilities

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. __Credit Hours: 3 hrs _Prerequisite: SPGN251; admission to the teacher education program

## SPGN 471 - Curriculum and Transitions for Secondary Special Education

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. __Credit Hours: 3 hrs _Prerequisite: SPGN251 or SPGN510, SPGN390, SPGN461, SPGN395 or SPGN615 and admission to the teacher education program

## SPGN 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPGN 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 481 - Assistive and Instructional Technology in Special Education

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. __Credit Hours: 3 hrs _Prerequisite: SPGN251; a computer course; admission to the teacher education program

## SPGN 485-Curriculum, Programs and Services for Adolescents and Young Adults with Disabilities

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. __Credit Hours: 2 hrs

SPGN 486 - Transition and Related Field Experiences: Adolescents and Young Adults with Disabilities

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. __Credit Hours: 2 hrs

## SPGN 491 - Special Education Student Teaching and Seminar

Culminating field-based experience and seminar in the Special Education professional preparation program. Student teaching placement is in a $\mathrm{K}-12$ special education setting in the area in which the endorsement will be earned. Seminar requirements will focus on expanding field-based experiences. The placement and seminar are for one complete academic semester. __Credit Hours: 12 hrs _Prerequisite: admission to the teacher education program

## SPGN 497 - Independent Study

Directed study of a problem or group of problems in special education. __Credit Hours: 1 hr _Prerequisite: department permission

## SPGN 498 - Independent Study

Directed study of a problem or group of problems in special education. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPGN 499 - Independent Study

Directed study of a problem or group of problems in special education. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPGN 510 - Students with Disabilities in the General Education Classroom

A study of the nature and needs of students with disabilities being educated in the general education classroom. Review of philosophical and legal bases of inclusion and discussion of issues and concerns for students with disabilities who are educated in inclusive settings are emphasized. __Credit Hours: 3 hrs

## SPGN 591 - Special Topics

Experimental courses designed to investigate current issues and specific topics of concern related to disabilities. Not more than six hours of special topic may be used on a degree program. __Credit Hours: 2 hrs

Notes: This is a graduate course in an undergraduate program.

## SPHI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPHI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## SPHI 228 - Education of Students with Hearing Impairment

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._Credit Hours: 3 hrs _Prerequisite/Corequisite: SPGN251

## SPHI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## SPHI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPHI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided
different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPHI 375 - Fundamentals of Sign Communication

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. Credit Hours: 2 hrs

## SPHI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPHI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## SPHI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPHI 387 - Introductory Practicum Students with Hearing Impairment

Thirty clock hours of supervised observation and work with students with hearing impairments. __Credit Hours: 1 hr _Prerequisite: SPHI228; admission to the teacher education program

## SPHI 391 - Language for Students with Hearing Impairment

Language development of children with prelingual hearing impairments. Survey of
various methods of teaching language, including natural and structured approaches.
Credit Hours: 4 hrs _Prerequisite:
SPHI228; admission to the teacher education program

## SPHI 392 - Introduction to Audiology

Medical and surgical treatment of pathologies of the ear. Hearing screening tests, basic audiometric testing procedures and audiometric interpretation. __Credit Hours: 2 hrs _Prerequisite: SPSI332 and SPSI336

## SPHI 394 - Aural Habilitation Rehabilitation

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.
Credit Hours: 3 hrs _Prerequisite: SPHI392

## SPHI 435 - Phonetics and Hearing Impairment

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. _Credit Hours: 2 hrs _Prerequisite: SPSI332 and SPSI336

## SPHI 436 - Speech Methods for Students with Hearing Impairment

Methods of assessment and intervention in the development of intelligible connected speech in persons with hearing impairments.

Credit Hours: 2 hrs _Prerequisite:
SPHI435; admission to the teacher education program

## Students with Hearing Impairment

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. __Credit Hours: 3 hrs _Prerequisite: SPHI391; admission to the teacher education program

## SPHI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPHI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPHI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPHI 487 - Speech Practicum - Students with Hearing Impairment

Thirty clock hours of supervised observation and speech work with persons with hearing impairments. __Credit Hours: 1 hr _Prerequisite: SPHI436; admission to the teacher education program

## SPHI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## SPHI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPLI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## SPLI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SPLI 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## SPLI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs

## SPLI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SPLI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## SPLI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr

## SPLI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs

## SPLI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. $\qquad$ Credit Hours: 3 hrs

## SPLI 468 - Education of Children with Learning Disabilities

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. __Credit Hours: 2 hrs _Prerequisite: SPGN251 or SPGN510; admission to the teacher education program; senior standing

## SPLI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPLI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPLI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPLI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPLI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPLI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPMD 119-Orientation to Sports Medicine

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.
__Credit Hours: 1 hr

## SPMD 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPMD 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## SPMD 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPMD 201 - Human Anatomy for Sports Medicine

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. __Credit Hours: 3 hrs _Prerequisite: BIOL105 or BIOL110, departmental permission and 2.5 GPA in Exercise Science or Athletic Training _Cross-Listed: This course is cross-listed with ATTR201

## SPMD 202 - Human Physiology for Sports Medicine

Required lecture course for sports medicine majors that examines the structure and function of the human body. __Credit Hours: 3 hrs _Prerequisite: BIOL105 or BIOL110, departmental permission and 2.5 GPA in Exercise Science or Athletic Training _Cross-Listed: This course is cross-listed with ATTR202

## SPMD 221 - Therapeutic Modalities for Athletic Trainers

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. __Credit Hours: 2 hrs _Prerequisite: SPMD119

## SPMD 269 - Anatomy and Physiology for Dietetics

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.
__Credit Hours: 3 hrs

## SPMD 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPMD 278-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPMD 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPMD 280 - Pharmacology for Sports Medicine

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.
__Credit Hours: 2 hrs _Prerequisite:
BIOL105 or BIOL110, SPMD202/ATTR202, CHEM120 or CHEM121

## SPMD 300 - Physiology of Exercise

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. Credit Hours: 4 hrs _Prerequisite:
SPMD201/ATTR201 and SPMD202/ATTR202 or equivalent (ZOOL $201 \& 202)$ Cross-Listed: This course is cross-listed with PHED300

## SPMD 305 - Kinesiology-Tissue Mechanics

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.
Credit Hours: 3 hrs Prerequisite:
SPMD201/ATTR201, SPMD202/ATTR202 and PHY221

## SPMD 325 - Practicum in Exercise Science

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. __Credit Hours: 2 hrs _Prerequisite: PHED300/SPMD300

## SPMD 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPMD 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPMD 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs Prerequisite: department permission

## SPMD 380 - Behavioral Aspects of Sports Medicine

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.
_Credit Hours: 3 hrs _Prerequisite: PSY101 or 102

## SPMD 380W - Behavioral Aspects of Sports Medicine

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. Credit Hours: 3 hrs _Prerequisite: PSY101 or 102

## SPMD 410 - Laboratory Techniques in Human Performance Analysis

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. __Credit Hours: 4 hrs _Prerequisite: PHED300/SPMD300 and candidacy

## SPMD 421 - Legal Aspects of Sports Medicine

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. __Credit Hours: 2 hrs

## SPMD 430 - Principles of Electrocardiography

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.
Credit Hours: 3 hrs _Prerequisite:
PHED300/SPMD300 and candidacy

## SPMD 431 - Pathophysiology for Sports Medicine

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.
__Credit Hours: 3 hrs _Prerequisite:
PHED300/SPMD300 and candidacy

## SPMD 432 - Introduction to Exercise Programming

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;
2) identification and development of exercise leadership skills; and 4) exercise compliance issues. _Credit Hours: 3 hrs _Prerequisite: SPMD410 and candidacy

## SPMD 433 - Principles of Strength and Conditioning

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. _Credit Hours: 3 hrs _Prerequisite: SPMD305, PHED300/SPMD300 or department permission

## SPMD 434 - Introduction to Echocardiography

This course is designed to give students the fundamental background in echocardiography, cardiac anatomy and function, cardiac disease states and proper
terminology which will allow students entering the health care professions the ability to understand and analyze a basic twodimensional echocardiogram. __Credit Hours: 2 hrs _Prerequisite: SPMD430

## SPMD 477 - Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations. __Credit Hours: 1 hr _Prerequisite: candidacy and department permission

## SPMD 478 - Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations. __Credit Hours: 2 hrs _Prerequisite: candidacy and department permission

## SPMD 479 - Special Topics

Offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations. __Credit Hours: 3 hrs _Prerequisite: candidacy and department permission

## SPMD 480 - Internship - Exercise

 ScienceA 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. __Credit Hours: 8 hrs _Prerequisite: candidacy and department permission

## SPMD 497 - Directed Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## SPMD 498 - Directed Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPMD 499 - Directed Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPNH 121 - Beginning Spanish I

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). __Credit Hours: 5 hrs

## SPNH 122 - Beginning Spanish II

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). __Credit Hours: 5 hrs _Prerequisite: SPNH121 or by placement exam

## SPNH 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPNH 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPNH 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPNH 201 - Intermediate Spanish I

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. __Credit Hours: 4 hrs _Prerequisite:
SPNH122 or by placement exam

## SPNH 202 - Intermediate Spanish II

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.
__Credit Hours: 4 hrs _Prerequisite:
SPNH201 or by placement exam

## SPNH 221 - Intermediate Spanish Reading

An introduction to literary criticism as applied to Hispanic literature. Extensive reading of materials in Hispanic literature and culture. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH202 or by placement

## SPNH 222 - Introduction to Hispanic

## Literature

An intorduction to literature through the reading and discussion of works from Hispanic writers representative of various periods, genres, countries and cultures. Analysis of works with attention to literary techniques and critical approaches. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH201 or by department permission

## SPNH 261 - Introduction to Professional Language Study

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. _Credit Hours: 3 hrs _Prerequisite: SPNH121, SPNH122, SPNH201, SPNH202, SPNH221, SPNH222

## SPNH 277 - Special Topics

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. Credit Hours: 1 hr _Prerequisite: department permission

## SPNH 278 - Special Topics

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. Credit Hours: 2 hrs _Prerequisite: department permission

## SPNH 279 - Special Topics

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.

## SPNH 301 - The Cultures of Spain

A panoramic view of the peoples of Spain, their cultures, environment and way of life In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH202/222 or department permission

## SPNH 302 - The Cultures of Spanish America

A panoramic view of the cultures, the peoples and the environment of Spanish America. Credit Hours: 3 hrs _Prerequisite:
SPNH202/222 or department permission Notes: In Spanish.

## SPNH 341 - Survey of Spanish Literature

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. __Credit Hours: 3 hrs _Prerequisite: SPNH222 or department permission

## SPNH 343 - Spanish Grammar and Composition

Practice in writing for a variety of purposes and a systematic review of Spanish grammar. Frequent written assignments. __Credit Hours: 3 hrs _Prerequisite: SPNH202/222 or department permission

## SPNH 344 - Spanish Conversation and Composition

Emphasis on improved pronunciation, acquisition of vocabulary and idioms for daily life, frequent written compositions and the development of greater oral proficiency.
Credit Hours: 3 hrs _Prerequisite:
SPNH202 and SPNH222 or department permission

## SPNH 351 - Survey of Spanish-American Literature

This course deals with the major writers of Spanish America from the colonial period through modernism. In Spanish. Credit

Hours: 3 hrs _Prerequisite: SPNH222 or department permission

## SPNH 361 - Spanish for International Trade

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.
Credit Hours: 3 hrs _Prerequisite:
SPNH343 or department permission

## SPNH 377 - Special Topics

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.
Credit Hours: 1 hr _Prerequisite:
department permission

## SPNH 378 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

## SPNH 379 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## SPNH 388 - Internship

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 Hours: 1 hr Prerequisite: department permission _Notes: Offered on a credit/no-credit basis.

## SPNH 401 - Advanced Readings in <br> Spanish Literature

Students will read, analyze and discuss in class a selection of representative and challenging works of Spanish literature from a variety of genres (poetry, prose, theater), and from a variety of historical periods. Course readings will be discussed in their historical, cultural and social contexts, and with regard to related literary trends and critical theories. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH343 or departmental permission

## SPNH 402 - Advanced Readings in Spanish American Literature

Students will read, analyze and discuss a selection of representative and challenging works of Spanish-American literature from multiple historical periods and genres (poetry, prose, theatre) . Course readings will be discussed in their historical, cultural and social contexts, and with regard to related literary trends and critical theories. In Spanish. __Credit Hours: 3 hrs

## SPNH 443 - Advanced Spanish Grammar and Composition

Extensive written practice for a variety of purposes integrating advanced grammatic structures. Frequent written assignments.
__Credit Hours: 3 hrs _Prerequisite:
SPNH343 and SPNH344 or department permission

## SPNH 443W - Advanced Grammar and Composition

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description.
__Credit Hours: 3 hrs _Prerequisite:
SPNH343 and SPNH344 or department permission

## SPNH 444 - Advanced Spanish <br> Conversation and Composition

Emphasis on greater oral facility, acquisition
of additional vocabulary and idioms, advanced sentence structures and frequent written compositions. __Credit Hours: 3 hrs _Prerequisite: SPNH343/344 or department permission

## SPNH 445 - Spanish-American Prose

A study of selected topics in SpanishAmerican literature. May be repeated for credit if the material of the course is in another area. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH352 or department permission

## SPNH 446 - Business Spanish

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.
__Credit Hours: 3 hrs _Prerequisite:
SPNH361 or department permission

## SPNH 447 - Business Spanish

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.
__Credit Hours: 3 hrs _Prerequisite:
SPNH361 or department permission

## SPNH 448 - Modern Drama

The development of modern Spanish drama and its various types. Works of the principal dramatists of the 19th and 20th centuries. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH342 or department permission

A study of the major works of Hispanic Romanticism. __Credit Hours: 3 hrs _Prerequisite: SPNH342 or department permission _Notes: In Spanish.

## SPNH 450-Spanish-American Theatre

A study of the theatre in Spanish America from its beginning to the present In Spanish.
_Credit Hours: 3 hrs _Prerequisite: SPNH352 or department permission

## SPNH 454 - Modernism in Spanish America

A survey of the literary movement known as "modernismo" in the literature of Spanish America. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH352 or department permission

## SPNH 455 - The Generation of 1898

A study of the works of the main authors of the generation of 1898, from Unamuno to Ortega y Gasset. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH342 or department permission

## SPNH 456 - Scientific and Technical Spanish I

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. __Credit Hours: 3 hrs _Prerequisite: $\overline{\mathrm{SPNH}} 343$ or department permission

## SPNH 457 - Scientific and Technical Spanish II

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. _Credit Hours: 3 hrs _Prerequisite: SPNH456 or department permission

## SPNH 463 - Don Quixote

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.
__Credit Hours: 3 hrs _Prerequisite:
SPNH341 or department permission

## SPNH 464 - Drama of the Golden Age

The drama of the 16 th and 17 th centuries. Works of the major authors will be read and discussed. In Spanish. __Credit Hours: 3 hrs _Prerequisite: SPNH341 or department permission

## SPNH 465 - Modern Novel

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. __Credit Hours: 3 hrs _Prerequisite: SPNH342 or department permission

## SPNH 471 - Culture and Literature of the Hispanic Groups in the United States

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. __Credit Hours: 3 hrs

## SPNH 477 - Special Topics

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.
__Credit Hours: 1 hr _Prerequisite: department permission

## SPNH 478 - Special Topics

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.
_Credit Hours: 2 hrs _Prerequisite:
department permission

## SPNH 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPNH 482 - Language of the Hispanic Groups in the United States

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. __Credit Hours: 3 hrs _Prerequisite: an introductory course in linguistics or department permission

## SPNH 488 - Internship

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 Hours: 2 hrs
_Prerequisite: department permission _Notes:
Offered on a credit/no-credit basis

## SPNH 489 - Internship

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPNH 490 - Intensive Spanish

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. __Credit Hours: 6 hrs

## SPNH 492 - Senior Seminar in Spanish

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. In Spanish. Course available to all Spanish majors. __Credit Hours: 3 hrs _Prerequisite: at least 18 hours of 300-400 level Spanish, including SPNH443 and/or SPNH444; department permission _Concurrent Prerequisite: SPNH443 and SPNH444

## SPNH 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 1 hr _Prerequisite: department permission

## SPNH 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPNH 499 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPPI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPPI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPPI 240 - Preclinical Experiences POHI

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.

## __Credit Hours: 3 hrs

## SPPI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPPI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPPI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPPI 310 - Developmental Sciences for Teachers of the Physically and Health Impaired

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. __Credit Hours: 4 hrs
_Prerequisite: BIOL105 and SPGN251

## SPPI 360 - Pathology of Physical and Health Impairments

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. __Credit Hours: 3 hrs _Prerequisite: SPPI310

## SPPI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPPI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPPI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPPI 412 - Ancillary Services and Health Procedures for Teachers of Physically Impaired

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.
__Credit Hours: 2 hrs _Prerequisite: SPPI310
or instructor permission; admission to the teacher education program

## SPPI 414 - Educational Strategies for Teachers of the Physically Impaired

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. __Credit Hours: 4 hrs _Prerequisite: SPPI360 and CURR304 or CURR305; admission to the teacher education program

## SPPI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr _Prerequisite: department permission

## SPPI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

## SPPI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## SPPI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs
_Prerequisite: department permission

## SPPI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 3 hrs Prerequisite: department permission

## SPPI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## SPSI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPSI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPSI 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPSI 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPSI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## SPSI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPSI 332 - Acoustic Phonetics Speech Science

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. __Credit Hours: 2 hrs _Corequisites: SPSI336

## SPSI 334 - Applied Phonetics

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. __Credit Hours: 2 hrs _Corequisites: SPSI335

## SPSI 335 - Communication Disorders

A study of the major communication disorders as deviations from normal physical and social behavior. Etiology and symptomatology. __Credit Hours: 3 hrs _Corequisites: SPSI334

## SPSI 336 - Physiologic Phonetics: Anatomy and Physiology

Anatomy and physiology of normal speech production, consideration of speech as a motor behavior, physiological investigation of speech and voice. __Credit Hours: 3 hrs _Corequisites: SPSI332

## SPSI 337 - Language Acquisition

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.
__Credit Hours: 3 hrs

## SPSI 340 - Phonological and Articulation Disorders

Issues of phonological development and theory as well as diagnosis and treatment of articulation and phonological problems. Focuses on preschool, elementary and secondary individuals. Credit Hours: 3 hrs Prerequisite: SPSI332, SPSI336 and SPSI337 _Corequisites: SPSI342

## SPSI 342 - Language Disorders in Children

Issues in the theoretical bases of language disorders as well as diagnosis and treatment of language disorders in children. __Credit Hours: 3 hrs _Corequisites: SPSI340

## SPSI 343 - Clinical Methods in SpeechLanguage Pathology

Basic principles of evaluation and treatment in speech-language pathology. Supervised clinical observation in the Speech and Hearing Clinic. __Credit Hours: 2 hrs _Prerequisite: SPSI340, SPSI342, department permission

## SPSI 344 - Clinical Practice in SpeechLanguage Pathology

Supervised clinical experience with language, phonological and articulation disorders.
__Credit Hours: 2 hrs _Prerequisite: SPSI343
and department permission

## SPSI 347 - Management of Acquired Neurogenic Communication Disorders

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. _Credit Hours: 3 hrs

## SPSI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPSI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPSI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPSI 452 - Voice

A study of the etiology, diagnosis and treatment of functional and organic voice disorders, including defects of loudness, pitch and quality. __Credit Hours: 3 hrs
_Prerequisite: SPSI332, SPSI336

## SPSI 454 - Stuttering

Causation, symptomatology and remedial procedures of stuttering; specific therapy procedures in the clinic, the school and the home. _Credit Hours: 3 hrs _Prerequisite: SPSI332, SPSI334, SPSI336 and SPSI337

## SPSI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## SPSI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPSI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPSI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPVI 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPVI 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPVI 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPVI 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPVI 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPVI 365 - Braille

Developing proficiency in reading and writing error-free braille and the reading of music braill __Credit Hours: 3 hrs
_Prerequisite/Corequisite: SPGN251

## SPVI 366 - The Eye and Vision Anatomy and Physiology

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. __Credit Hours: 2 hrs _Prerequisite: SPGN251

## SPVI 368 - Mobility Training for Persons with Visual Impairment

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. __Credit Hours: 2 hrs _Prerequisite: junior standing

## SPSI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

## Persons with Visual Impairment

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. __Credit Hours: 3 hrs _Prerequisite: SPGN251

## SPVI 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SPVI 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPVI 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPVI 464 - Methods of Teaching Children

 who are BlindA 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. __Credit Hours: 3 hrs _Prerequisite: SPGN251; admission to the teacher education program

## SPVI 465 - Braille II: Nemeth Code

Development of proficiency in reading and writing Nemeth Braille code for mathematics and science notation. __Credit Hours: 3 hrs _Prerequisite: SPVI365; admission to the

## SPVI 467 - Education of Children with Visual Impairment

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. __Credit Hours: 2 hrs _Prerequisite: SPGN251; admission to the teacher education program

## SPVI 469 - Technology for Persons with

 Visual ImpairmentExperience 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. __Credit Hours: 2 hrs _Prerequisite: admission to the teacher education program

## SPVI 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SPVI 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SPVI 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SPVI 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 1 hr

## SPVI 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. _Credit Hours: 2 hrs
_Prerequisite: department permission

## SPVI 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs
_Prerequisite: department permission

## SSC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SSC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SSC 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SSC 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## SSC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## SSC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SSC 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## SSC 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## SSC 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## SSC 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SSC 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SSC 387 - Co-operative Education

Credit Hours: 3 hrs

## SSC 441 - Foreign and Domestic Terrorism for First Responders

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. __Credit Hours: 3 hrs

## SSC 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## SSC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## SSC 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## SSC 487-Co-operative Education

Credit Hours: 3 hrs
technology focusing on technological concepts and problems. Several technological systems and their dynamics, particularly as they relate to global issues and culture, will be examined. __Credit Hours: 3 hrs

## STS 170-Global Technologies

Students analyze and synthesize information from diverse sources to explore how communications, energy and medical technologies influence cultural interactions. Students explore the issues of intolerance, along with historical, social and cultural differences and how they affect interactions with those cultures in order to make informed decisions. __Credit Hours: 3 hrs

## STS 201 - Microcomputer Applications in Technology

An introduction to microcomputers and their applications in technology. The course contains an introduction to word processing, spreadsheets, database management and their applications. __Credit Hours: 3 hrs _Prerequisite: basic keyboard skill is recommended

## STS 202 - Disabled in the U.S.A. - Rights, Prejudice, Claims and Responsibilities

Examines responsibility of society from legal perspective towards persons with disabilities, including intensive examination of their rights in all aspects of society, their challenges and strategies for successful integration in diverse settings. Explores skills necessary to assist in protecting rights and assist in defending lawsuits filed by the disabled. __Credit Hours: 3 hrs

## STS 224 - Solving Quantitative Problems in Technology

Application of computer-based tools and procedures to the solution of mathematical problems encountered in technology.
__Credit Hours: 3 hrs

## STS 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## STS 277-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## STS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## STS 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## STS 279-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## STS 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## STS 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## STS 300 - Research and Writing: The Technology Career

Focuses on research and writing in technology career fields. Students analyze documents, writing standards, and audiences. They integrate research findings to construct effective arguments. Genres include policies, procedures, reports, and presentations for the workplace and for community, professional, and governmental bodies. Assignments are customized to School of Technology Studies majors. __Credit Hours: 3 hrs

## STS 300W - Research and Writing: The Technology Career

This course is offered as a part of the General Education Program and satisfies the Writing

Intensive requirement. Credit Hours: 3 hrs

## STS 377-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## STS 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## STS 387 - Co-operative Education

Credit Hours: 3 hrs

## STS 420 - Women and Technology

This course surveys gender issues surrounding technology development, transfer and use. We will examine these issues from historical, contemporary and global perspectives. _Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST420

## STS 477-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## STS 478-Special Topics

An exploration and study of topics not covered in other departmental offerings.

Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## STS 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## STS 487 - Co-operative Education

Credit Hours: 3 hrs

## STS 495 - Technology, Values, and the Future

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. __Credit Hours: 3 hrs

## STS 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

## STS 498 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 2 hrs _Prerequisite: department permission

## STS 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## SWRK 120 - Introduction to Social Work Services and Professional Roles

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. __Credit Hours: 3 hrs _Notes: Concurrent registration in SWRK222/251 is permitted, but not required.

## SWRK 177 - Special Topics

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. __Credit Hours: 1 hr

## SWRK 178 - Special Topics

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. __Credit Hours: 2 hrs

## SWRK 179 - Special Topics

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. __Credit Hours: 3 hrs

## SWRK 200 - Human Diversity and Social Justice

This course introduces students to a framework for understanding the implications of human diversity for social work practice. Dimensions of diversity addressed include race, class and gender, along with ethnicity, sexual orientation and privilege. Students develop the basis for sensitive, competent social work practice and social justice advocacy. __Credit Hours: 3 hrs

## SWRK 222 - Social Welfare Policies and Services

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.
_Credit Hours: 3 hrs _Prerequisite:
SWRK120 _Notes: Concurrent registration in SWRK120 and SWRK251 is permitted, but not required.

## SWRK 251 - Self Assessment and Development for Social Work

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.
_Credit Hours: 1 hr _Prerequisite:
SWRK120, SWRK220 and SWRK222
_Notes: Concurrent registration in
SWRK120, SWRK220 and SWRK222 is permitted, but not required.

## SWRK 277 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## SWRK 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## SWRK 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## SWRK 287 - Cooperative Education in Social Work

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. __Credit Hours: 3 hrs _Prerequisite: SWRK120; sophomore standing; approval of the Cooperative Education Office and department permission

## SWRK 315-Theoretical Bases for Social Work Practice

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. __Credit Hours: 3 hrs _Prerequisite: PSY101 or PSY102; SOCL105; PSY360; EDPS325 or IHHS260; social work majors only

## SWRK 317 - Interpersonal Foundations of Social Work Practice

The first course in a sequence of social work practice, designed to prepare the student for field experience. Relationshop building, information gathering and preliminary assessment and contracting. __Credit Hours: 4 hrs _Prerequisite: SWRK 315 and social work majors only _Corequisites: SWRK 318 and SWRK 319 _Notes: Concurrent
registration in SWRK315 and SWRK317 is permitted, but not required.

## SWRK 318 - Practice I - Skill Integration Seminar

This seminar is a co-requisite of SWRK317. The seminar focuses on practicing the skills explored during the lecture. Students engage in videotaped role-plays for feedback and skill refinement. __Credit Hours: 1 hr _Prerequisite: SWRK315 and social work majors only _Corequisites: SWRK317 and SWRK319 _Notes: Concurrent registration in SWRK315 and SWRK318 is permitted, but not required.

## SWRK 319 - Writing for Agency Practice

This course is a writing intensive course, preparing students for the professional writing components of professional, agencybased practice. The course will sensitize students to the agency-based demands and issues associated with professional social work practice while developing professional writing skills focused on a simulated client situation. __Credit Hours: 3 hrs _Prerequisite: social work majors only
_Corequisites: SWRK317 and SWRK318

## SWRK 319W - Writing for Agency Practice

This course is offered as a part of the General Education Program and satisfies the Writing Intensive requirement.

Click here for the course description. _Prerequisite: social work majors only
_Corequisites: SWRK317 and SWRK318

## SWRK 330 - Social Work Evaluation and Research: Qualitative and Statistical Methods

This course introduces knowledge and develops skills in research and practice evaluation from a social work empowerment perspective that is sensitive to diversity and social justice. Students will develop competencies in evaluation of professional literature, qualitative and quantitative methods, research skills, assessment and in utilizing technologies through a laboratory experience. __Credit Hours: 4 hrs
_Prerequisite: social work majors only and junior or senior level standing

## SWRK 350 - Generalist Social Work Practice with Organizations and Communities

This course provides generalist practice skills in organizations and communities, supported by a service-learning experiential component. Students will learn a range of macro practice assessment and intervention skills to promote improvements in social service organizations, social welfare systems and communities for the purpose of empowerment, social and economics justice and social change.
Credit Hours: 3 hrs _Prerequisite:
SWRK315, SWRK317, SWRK318, SWRK319, social work majors only and junior or senior level standing _Notes: Concurrent registration in SWRK315, SWRK317, SWRK318, SWRK319 and SWRK350 is permitted, but not required.

## SWRK 350L - Generalist Social Work Practice: Organizations and Communities

This course provides generalist practice skills in organizations and communities, supported by a service-learning experiential component. Students will learn a range of macro practice assessment and intervention skills to promote improvements in social service organizations, social welfare systems and communities for the purpose of empowerment, social and economics justice and social change.
__Credit Hours: 3 hrs _Prerequisite: SWRK315, SWRK317, SWRK318, SWRK319, social work majors only and junior or senior level standing _Notes: Concurrent registration in SWRK315, SWRK317, SWRK318, SWRK319 and SWRK350 is permitted, but not required. This course will count as credit for learning beyond the classroom.

## SWRK 375 - Working with Youth in Care

Students explore the effects of child abuse and placement on adolescent development and necessary worker skill adaptations. The course sensitizes students to the unique needs of older youth in foster care/group living and explores strength-based/youth development approaches to service. Skills needed for social work and residential practice are

## SWRK 377 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## SWRK 387 - Cooperative Education in Social Work

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. _Credit Hours: 3 hrs _Prerequisite: SWRK120, sophomore standing, approval of the Cooperative Education Office and department permission

## SWRK 388 - Preprofessional Practicum

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. __Credit Hours: 3 hrs _Prerequisite: social work majors only _Corequisites: SWRK317

## SWRK 405-Analysis and Change of Social Welfare Policies

Current social policy and its intended and unintended effects on client populations.

Policy analysis and strategies and methods for policy change. __Credit Hours: 3 hrs _Prerequisite: PLSC112, SWRK217, SWRK318, SWRK319 and social work majors only _Corequisites: SWRK488 or SWRK489 _Notes: Concurrent registration in SWRK317, SWRK318 and SWRK319 is permitted, but not required.

## SWRK 408-Generalist Social Work Practice with Individuals and Families

This course provides students with a framework for generalist social work practice with individuals and families. Content includes practice values, models of assessment and phases of planned sequential change. __Credit Hours: 3 hrs _Prerequisite: SWRK317, SWRK318, SWRK319, SWRK350 and social work majors only _Notes: Concurrent registration in SWRK350 and SWRK408 is permitted, but not required.

## SWRK 409-Generalist Social Work Practice with Groups

This course explored generalist practice with groups. Students learn how to analyze group situations in different domains of social work practice. Students develop skills to intervene at both the group and the individual levels and how to develop mutual aid and empowerment among the members of the social work group. __Credit Hours: 3 hrs _Prerequisite: SWRK317, SWRK318, SWRK319, SWRK350 and social work majors only _Notes: Concurrent registration in SWRK350 and SWRK409 is permitted, but not required.

## SWRK 410-Generalist Social Work Practice: Organizations and Communities

This course provides generalist practice skills in organizations and communities, supported by a service-learning experiential component. Students will learn a range of macro practice assessment and intervention skills to promote improvements in social service organizatins, social welfare systems and communities for the purpose of empowerment, social and economics justice and social change.
__Credit Hours: 3 hrs _Prerequisite:
SWRK315, SWRK317, SWRK319, social work majors only and junior or senior level standing _Corequisites: SWRK409

## SWRK 413 - Women and Aging

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. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission _Cross-Listed: This course is cross-listed with WGST413

## SWRK 420 - Working with Aging People

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. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 431 - Substance Abuse

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. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 435-Group Work with Children and Families

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.
__Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 440 - Issues in Mental Health Practice

Issues in mental health practice with emphasis on deinstitutionalization, community mental health and the role of the entry-level social worker. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 443 - Assessment Issues in Domestic Violence

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. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 450 - Practice Issues with Women

This course provides a critical examination of the potential of social policies and programs, community, organizations and practice interventions to challenge women's systematic disadvantage and enhance women's welfare. Intervention strategies that give voice to women's strengths and address their unique needs are learned while exploring the diversity of women's lives. Issue of work income maintenance, family life, health, sexuality and community are addressed as they impact women. __Credit Hours: 3 hrs _Prerequisite: SWRL317, SWRK318, SWRL319, SWRK350 and social work majors only _Notes: Concurrent registration in SWRK350 and SWRK450 is permitted, but not required.

## SWRK 451 - Practice Issues with People of Color

This course is a required undergraduate course intended to prepare students for cultural competent generalist practice with people of color. The course helps students apply culturally appropriate knowledge, skills and values in their work with clients. Special attention is given to pressing regional concerns impacting clients of color and describes ways students can become active change agents as they strive to respond to the needs of agency clients. __Credit Hours: 3 hrs _Prerequisite: SWRK317, SWRK318, SWRK319, SWRK350 and social work majors only _Notes: Concurrent registration for SWRK350 and SWRK451 is permitted,
but not required.

## SWRK 457 - Separation, Loss and Grief

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. __Credit Hours: 1 hr _Prerequisite: social work major or minor or department permission

## SWRK 460 - The Law and Social Work with the Family

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.
_Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission

## SWRK 462 - Practice with Lesbian, Gay, Bisexual and Transgender Persons

This course exposes students to a wide array of life experiences of lesbian, gay, biattractional 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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with WGST462.

## SWRK 463 - Social Work Practice with Legal Offenders

Professional roles and appropriate practice skills utilized by social workers and allied professionals in working with legal offenders.
__Credit Hours: 3 hrs _Prerequisite: social
work major or minor or department permission

## SWRK 467-Crisis Intervention

Systems in crisis including different types of
crises, indications of a system in crisis and crisis intervention strategies. __Credit Hours: 2 hrs _Prerequisite: social work major or minor or department permission

## SWRK 477-Special Topics

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. __Credit Hours: 1 hr _Prerequisite: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

## SWRK 478-Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

## SWRK 478-Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

## SWRK 479 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

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. __Credit Hours: 3 hrs _Prerequisite: (SWRK120 and SWRK222) or SWRK251 and SWRK254 or department permission

## SWRK 488 - Field Experience I

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.

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. The field placement agency, in consultation with the School of Social Work, provides learning experiences and supervision at the senior level. Open only to students with an overall GPA of 2.3 or better in social work courses. Student may not be on academic probation. __Credit Hours: 6 hrs _Prerequisite: department permission required, senior level standing and social work majors only

## SWRK 489 - Field Experience II

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. __Credit Hours: 6 hrs _Prerequisite: department permission required and social work majors only

## SWRK 490 - Senior Thesis Seminar

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.
__Credit Hours: 3 hrs _Prerequisite: social work majors only; member of Honors College

## SWRK 550 - Working with Aging People

This course is designed to provide social
work students and students in related disciplines with the sensitivity, knowledge and skills necessary to enhance their understanding of the pleasures, problems and needs of aging people and to develop their effectiveness in providing services to, and working with, aging individuals, families, groups, agencies and communities. This course will focus on the role of the human service provider in relation to the direct provision of services. It will examine the political and psychosocial factors that effect the availability, provision and acceptance of such services. __Credit Hours: 3 hrs _Notes: This is the graduate course in an undergraduate program.

## TEDU 103 - Structures and Design in

 TechnologyThe 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. __Credit Hours: 3 hrs

## TEDU 105 - History of Industrial Technology

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. __Credit Hours: 3 hrs

## TEDU 106-Processing Technology

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. __Credit Hours: 3 hrs

## TEDU 114 - Information and Control Technology

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. __Credit Hours: 3 hrs

## TEDU 118 - Energy and Transportation Technology

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. __Credit Hours: 3 hrs

## TEDU 152 - Arts and Crafts

Experience in design and use of a wide variety of craft materials. A vocational and recreational use of craft media. __Credit Hours: 3 hrs

## TEDU 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## TEDU 246 - Safety in Technology and Vocational Education

Safety, health and environmental factors and their implications for technology and vocational educators, students, laboratories and instructional programs. __Credit Hours: 2 hrs

## TEDU 250 - Foundations of Technology and Vocational Education

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. __Credit Hours: 3 hrs

## TEDU 253 - Technology Education for Children

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. __Credit Hours: 3 hrs

## TEDU 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## TEDU 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## TEDU 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TEDU 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## TEDU 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. Credit Hours: 3 hrs _Prerequisite: department permission

## TEDU 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TEDU 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TEDU 350 - Curriculum in Technology and Vocational Education

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. __Credit Hours: 3 hrs _Prerequisite: TEDU250

## TEDU 354 - Experiences in Technology for Children

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. _Credit Hours: 2 hrs _Prerequisite: TEDU253

## TEDU 355 - Seminar in Technology for the Elementary School

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. _Credit Hours: 2 hrs _Prerequisite: TEDU354

## TEDU 358 - Tools and Materials

Experiences in the use of selected tools, machines and materials following contemporary therapeutic practices in occupational therapy and related professions.
Credit Hours: 3 hrs _Lecture/Lab Hours:
Lecture: two hours per week. Laboratory: two hours per week.

## TEDU 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 1 hr _Prerequisite: department permission

## TEDU 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
2 hrs _Prerequisite: department permission

## TEDU 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TEDU 387 - Cooperative Education in Technology Education

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.
__Credit Hours: 3 hrs _Prerequisite:
department permission _Notes: Credit applicable to a major in technology education only. Offered on a credit/no-credit basis.

## TEDU 450 - Solving Technological Problems

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. __Credit Hours: 3 hrs _Prerequisite: TEDU350; senior standing;

## TEDU 452 - Principles of Vocational Education

Concepts and principles of vocational education; current issues in vocational education in Michigan. __Credit Hours: 3 hrs _Prerequisite: TEDU350

## TEDU 460 - Methods of Teaching Technology and Vocational Education

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.

Credit Hours: 3 hrs _Prerequisite:
TEDU350 and junior or senior standing

## TEDU 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hr _Prerequisite: department permission

## TEDU 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TEDU 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TEDU 487 - Cooperative Education in Technology Education

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 Hours: 3 hrs Prerequisite:
TEDU387 and department permission _Notes: Credit applicable to a major in technology education only.

## TEDU 497 - Directed Study-Technology Education

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. __Credit Hours: 1 hr _Prerequisite: department permission

## TEDU 498 - Directed Study-Technology Education

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## TEDU 499 - Directed Study-Technology Education

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## THRC 100-Orientation to Therapeutic Recreation

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. _Credit Hours: 3 hrs

## THRC 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## THRC 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## THRC 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 3 hrs _Prerequisite: department permission

## THRC 180 - Activity Analysis and Adaption

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. __Credit Hours: 2 hrs

## THRC 200 - Recreation for Persons with Disabilities

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. _Credit Hours: 3 hrs

THRC 210 - Camping for Special Populations

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. __Credit Hours: 2 hrs _Prerequisite: THRC200 or SPGN251

## THRC 250 - Fieldwork in Recreation Therapeutic Recreation

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. __Credit Hours: 1 hr _Prerequisite: THRC100

## THRC 251 - Fieldwork in Recreation Therapeutic Recreation

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. __Credit Hours: 1 hr _Prerequisite: THRC100

## THRC 252 - Fieldwork in Recreation Therapeutic Recreation

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. __Credit Hours: 1 hr _Prerequisite: THRC100

## THRC 253 - Fieldwork in Recreation Therapeutic Recreation

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. __Credit Hours: 1 hr _Prerequisite: THRC100

## THRC 277 -Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided
different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## THRC 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## THRC 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## THRC 290 - Quality <br> Improvement:Research Methods in Health Care

This course is designed to prepare the entrylevel 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. __Credit Hours: 3 hrs

## THRC 300 - Principles of Therapeutic Recreation

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.
Credit Hours: 3 hrs _Prerequisite:
THRC100 and THRC200

## THRC 310 - Leisure and Aging

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. __Credit Hours: 3 hrs

## THRC 320 - Leisure Education

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. __Credit Hours: 3 hrs

## THRC 330 - Therapeutic Recreation: Substance Abuse

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. __Credit Hours: 3 hrs _Prerequisite: THRC200

## THRC 340 - Therapeutic Recreation Processes I

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.
Credit Hours: 3 hrs _Prerequisite: THRC200

## THRC 360 - Therapeutic Recreation Program Planning

This course is designed to provide the therapeutic recreation student with knowledge in the planning and development of programs to achieve goals, objectives and strategies through the use of structured and systematic interventions that improve client functioning and independence in life activities and leisure functioning. __Credit Hours: 3 hrs _Prerequisite: THRC100

## THRC 377 - Special Topics

An exploration and study of topics not
covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## THRC 378-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## THRC 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## THRC 400 - Therapeutic Recreation Process II

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. __Credit Hours: 3 hrs _Prerequisite: THRC100, THRC200, THRC300, THRC340; or department permission

## THRC 410 - Professional Preparation

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. __Credit Hours: 2 hrs

## THRC 430 - Issues in Therapeutic

## Recreation

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. _Credit Hours: 3 hrs _Prerequisite: THRC200/300

## THRC 449 - Therapeutic Recreation Practicum

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. __Credit Hours: 8 hrs _Prerequisite: 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

## THRC 477 -Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## THRC 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## THRC 479-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## THRC 481 - Adapted Aquatics

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.
__Credit Hours: 2 hrs

## THRC 497 - Directed Study

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. _Credit Hours: 1 hr _Notes: 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.

## THRC 498 - Directed Study

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. __Credit Hours: 2 hrs _Notes: 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.

## THRC 499 - Directed Study

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. __Credit Hours: 3 hrs _Notes: 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.

## THRC 510 - Leisure and Aging

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.
Credit Hours: 3 hrs

## TM 130 - Introduction to Technology Management

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. __Credit Hours: 3 hrs

## TM 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hrs _Prerequisite: department permission

## TM 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TM 179-Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TM 212 - The Management of Technological Change

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.
__Credit Hours: 3 hrs

## TM 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours:
1 hrs _Prerequisite: department permission

## TM 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TM 279 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TM 285 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 1 hr _Prerequisite: department permission

## TM 286 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 2 hrs _Prerequisite: department permission

## TM 287 - Pre-Professional Internship

One semester of practical, on-the-job work experience and training at select on-campus or off-campus facilities. __Credit Hours: 3 hrs _Prerequisite: department permission

## TM 308 - Seminar in Technological Impacts

An undergraduate-level introduction to technology assessment. Development of skills related to forecasting technological inventions and assessing their effect if adopted by society. __Credit Hours: 3 hrs

## TM 311 - Information Technology Management and Organizations

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. __Credit Hours: 3 hrs _Prerequisite: proficiency exam or junior status

## TM 314-A Socio-Technical Systems Approach to Process Improvement

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. __Credit Hours: 3 hrs _Prerequisite/Corequisite: TM130

## TM 377 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## TM 378 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TM 379 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TM 415 - Senior Seminar in Technology Management

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. __Credit Hours: 3 hrs _Prerequisite: TM130

## TM 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## TM 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. _Credit Hours: 2 hrs _Prerequisite: department permission

## TM 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TM 487-Co-operative Education

Credit Hours: 3 hrs

## TM 497 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 1 hr _Prerequisite: department permission

Advanced study on an individual basis in areas in which the department does not offer a formal course. Credit Hours: 2 hrs
_Prerequisite: department permission

## TM 499 - Independent Study

Advanced study on an individual basis in areas in which the department does not offer a formal course. __Credit Hours: 3 hrs _Prerequisite: department permission

## TSLN 330 - TESOL Methodology: Literacy

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. __Credit Hours: 3 hrs _Prerequisite: LNGE325

## TSLN 332 - Methodology:Listening and Speaking

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. Credit Hours: 3 hrs _Prerequisite:

## LNGE325

## TSLN 410 - TESOL

Methodology:Content-Based Approaches
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). __Credit Hours: 3 hrs _Prerequisite: TSLN330 and TSLN332

## TSLN 420 - SLA Testing and Assessment

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. __Credit Hours: 3 hrs _Prerequisite: TSLN330 and TSLN332
_Concurrent Prerequisite: TSLN410

## TSLN 477 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 1 hr _Prerequisite: department permission

## TSLN 478 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 2 hrs _Prerequisite: department permission

## TSLN 479 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: 3 hrs _Prerequisite: department permission

## TSLN 497 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. _Credit Hours: 1 hr _Prerequisite: department permission

## TSLN 498 - Independent Study

Advanced study on an individual research basis in areas not covered in formal course work. __Credit Hours: 2 hrs _Prerequisite: department permission

## TSLN 499 - Independent Study

Advanced study on an individual research
basis in areas not covered in formal course work. __Credit Hours: 3 hrs _Prerequisite: department permission

## UNIV 100 - Introduction to the University

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 academicallyengaging activities that connect the classroom to the EMU community, students learn how to live and learn in a multicultural environment. _Credit Hours: $1 / 3 \mathrm{hrs}$

## UNIV 100L - Introduction to the University

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 academicallyengaging activities that connect the classroom to the EMU community, students learn how to live and learn in a multicultural environment. __Credit Hours: $1 / 3 \mathrm{hrs}$ _Notes: This course will count as credit for Learning Beyond the Classroom.

## UNIV 101 - Introduction to the University

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 academicallyengaging activities that connect the classroom to the EMU community, students learn how to live and learn in a multicultural environment. __Credit Hours: $1 / 3$ hrs

## UNIV 101L - Introduction to the University

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 academicallyengaging activities that connect the classroom to the EMU community, students learn how to live and learn in a multicultural environment. __Credit Hours: $1 / 3 \mathrm{hrs}$ _Notes: This course will count as credit for Learning

Beyond the Classroom.

## UNIV 177 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: $1 / 3 \mathrm{hrs}$

## UNIV 178 - Special Topics

An exploration and study of topics not covered in other departmental offerings.
Students may elect more than once, provided different topics are studied. __Credit Hours: $1 / 3 \mathrm{hrs}$

## UNIV 179 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: $1 / 3 \mathrm{hrs}$

## UNIV 277 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: $1 / 2 \mathrm{hrs}$

## UNIV 278 - Special Topics

An exploration and study of topics not covered in other departmental offerings. Students may elect more than once, provided different topics are studied. __Credit Hours: $1 / 2 \mathrm{hrs}$

## UNIV 279 - Special Topics: Prior Learning and Portfolio Development

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## WGST 177 - Special Topics

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. _Credit Hours: 1 hr _Prerequisite:
department permission

## WGST 178-Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## WGST 179-Special Topics

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## WGST 200 - Introduction to Women's Studies

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. __Credit Hours: 3 hrs

## WGST 202 - Introduction to Gender and Sexuality

This course will introduce students to the way in which society constructs gender and sexual identity, and the way in which, in turn, gender and sexuality shape our understanding of the world and ourselves. Topics will include femininity and masculinity, as well as lesbian, gay, bisexual, transgender history and experience. __Credit Hours: 3 hrs

## WGST 205 - Women in Business

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.
__Credit Hours: 3 hrs _Cross-Listed: This
course is cross-listed with BMMT205

## WGST 208 - Minority Women in the United States

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.
Credit Hours: 3 hrs _Prerequisite:
SOCL105 or ANTH135 _Cross-Listed: This course is cross-listed with
ANTH208/ANTH208

## WGST 226 - Feminist Theory

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed PHIL226

## WGST 230 - Conversations with Girls

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. _Credit Hours: 4 hrs

## WGST 230L - Conversations with Girls

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. _Credit Hours: 4 hrs _Notes: This course will count as credit for Learning Beyond the Classroom.

## WGST 242 - Psychology of Women

Theories and empirical research concerning personality development in females. Examination of the origins of the behavior of women. __Credit Hours: 3 hrs _Prerequisite: PSY101 or PSY102 _Cross-Listed: This course is cross-listed with PSY242

## WGST 243 - Black Women: Politics and Racism

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with AAS243/PLSC243

## WGST 260 - Gender Communication

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. Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with CTAC260.

## WGST 269 - Biology of Sex and Gender

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. __Credit Hours: 3 hrs _Prerequisite: BIOL105, BIOL110 or ZOOL201_Cross-Listed: This course is cross-listed with ZOOL269

## WGST 277 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite:
department permission

## WGST 278 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## WGST 279 - Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## WGST 321 - Women and Gender in the Ancient World

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.
_Credit Hours: 3 hrs _Prerequisite: one 100level course in history _Cross-Listed: This course is cross-listed with CLAS321/HIST321.

## WGST 328 - Economics of Women

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. __Credit Hours: 3 hrs _Prerequisite: one 100-, 200- or 300-level course in economics _Cross-Listed: This

## WGST 335 - History of Women in Europe

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. __Credit Hours: 3 hrs _Prerequisite: one course in history _Cross-Listed: This course is cross-listed with HIST335

## WGST 336 - History of Women in the United States and Great Britain, 1800 to the Present

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.
__Credit Hours: 3 hrs _Prerequisite: one course in history or department permission _Cross-Listed: This course is cross-listed with HIST336

## WGST 338 - Women, Crime and Justice

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with CRM338/SOCL338.

## WGST 344 - Sociology of Gender

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. __Credit Hours: 3 hrs _Prerequisite: SOCL105 and sophomore standing _Cross-Listed: This course is crosslisted with SOCL344.

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. __Credit Hours: 3 hrs _Prerequisite: ANTH135 or department permission _Cross-Listed: This course is cross-listed with ANTH355.

## WGST 362 - Black Women: Religion and Sexism

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. __Credit Hours: 3 hrs _CrossListed: This course is cross-listed with AAS362/PLSC362

## WGST 365 - Women and Politics

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. __Credit Hours: 3 hrs _Prerequisite: PLSC112/113 _Cross-Listed: This course is cross-listed with PLSC365

## WGST 377 - Special Topics

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. __Credit Hours: 1 hr _Prerequisite: department permission

## WGST 378 - Special Topics

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## WGST 379-Special Topics

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## WGST 387-Cooperative Education in Women's Studies

This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations. __Credit Hours: 3 hrs _Prerequisite: department permission

## WGST 400 - Capstone Seminar

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.

Credit Hours: 3 hrs _Prerequisite:
WGST200 and WGST226/PHIL226

## WGST 405 - Women in Sports

Patterns, problems and conditions associated with women's sports involvement in selected world cultures; the sportswoman in American society. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with PHED405.

## WGST 413 - Women and Aging

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. __Credit Hours: 3 hrs _Prerequisite: social work major or minor or department permission_Cross-Listed: This course is cross-listed with SWRK413

## WGST 415-Sexual Communities in American History

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with HIST415.

## WGST 418 - Women and the Law

A critical analysis how gender, as an element of the American legal system, impacts the lives of women. Major U.S. cases and state and federal laws will be evaluated and challenged as appropriate. __Credit Hours: 3 hrs _Prerequisite: One of the following: LAW293, LEGL211, PLSC301, or WGST200 _Cross-Listed: LEGL418

## WGST 420 - Women and Technology

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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with STS420

## WGST 426 - Topics in Gender and Philosophy

An examination of gender and its relationship to other issues from a philosophical perspective. Possible topics include rationality, sexuality, aesthetics, ethics and political theory. __Credit Hours: 3 hrs _Prerequisite: two courses in philosophy or instructor permission _Cross-Listed: This course is crosse-listed with PHIL426

## WGST 436 - Women in Art

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. _Credit Hours: 3 hrs _Prerequisite: ART108 or department permission _CrossListed: This course is cross-listed with ART436.

## WGST 443 - Women in Literature

A study of women and their experiences as described in literature. __Credit Hours: 3 hrs _Prerequisite: two courses in literature _Cross-Listed: This course is cross-listed with LITR443

## WGST 462 - Practice with Lesbian, Gay,

 Bisexual and Transgender PersonsThis course exposes students to a wide array of life experiences of lesbian, gay, biattractional 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. __Credit Hours: 3 hrs _Cross-Listed: This course is cross-listed with SWRK462.

## WGST 477-Special Topics

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. __Credit Hours: 1 hr _Prerequisite:
department permission

## WGST 478 - Special Topics

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.
__Credit Hours: 2 hrs _Prerequisite:
department permission

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. __Credit Hours: 3 hrs _Prerequisite:
department permission

## WGST 487-Cooperative Education in Women's Studies

This course provides students with an opportunity to deal directly with issues affecting women by working with agencies and local organizations. __Credit Hours: 3 hrs _Prerequisite: department permission

## WGST 497 - Independent Study

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. __Credit Hours: 1 hr _Prerequisite: department permission

## WGST 498 - Independent Study

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. __Credit Hours: 2 hrs _Prerequisite: department permission

## WGST 499 - Independent Study

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. __Credit Hours: 3 hrs _Prerequisite: department permission

## Course Prefixes



| 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 |
| World Languages | WGST |
| 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 |

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 |

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 |
| 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

Click on a link to be taken to the entry below.

- Undergraduate Policy on Probation/Dismissal/Readmission
- Notification of Student Rights under FERPA
- Applicable Laws for Americans with Disabilities
- Residence Hall Eligibility Policy
- EMU Policy on Sexual Harassment
- Grade Grievance Procedure for the EMU Community
- Class Attendance Policy Works for You
- Student Involuntary Administrative Withdrawal
- Student Conduct Code and University Disciplinary Process
- Section I: Purpose
- Section II: Responsibility for Implementation
- Section III: Jurisdiction
- Section IV: Definitions
- Section V: Violations
- Section VI: Sanctions for Misconduct
- Section VII: Organization of the University Judicial System
- Section VIII: Rights of Charged Student(s)/Student Organizations in Disciplinary Proceedings
- Section IX: University Disciplinary Procedures
- Section X: Special Disciplinary Provisions Governing Acts of Academic Dishonesty
- Section XI: Special Provisions Governing the University Recognition and Conduct of Greek Letter Social Organizations
- Section XII: Interim Suspensions and Other Interim Sanctions
- Section XIII: Emergency Powers of the President
- Section XIV: Student Disciplinary Files and Records
- Section XV: Review of the Student Judicial System
- University Alcohol and Other Drug Policy
- EMU Policy on Notification to Parents of Drug and Alcohol Violations
- Tobacco Use Policy
- Acceptable Use of Information Technology Resources

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 <br> 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 $\mathbf{4 5}$ days of the day EMU receives a request for access.
2. 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.
3. 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.
4. 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.
5. 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:
a. commuting from the permanent home of their parents/guardian;
b. 21 years of age or older; or
c. 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 statues.

## Prohibited Acts

No member of the University community shall engage in sexual harassment. Persons who engage in sexual harassment are subject to disciplinary action, up to and including dismissal for employees and/or suspension or dismissal for students. Sexual harassment is defined as unwelcome advances, requests for sexual favors or other behavior of a sexual nature when:

- Submission to such conduct is made explicitly or implicitly a term or condition of an individual's employment or status in a course, program or activity.
- Submission to, or rejection of, such conduct is used as a basis for a decision affecting an individual's employment or participation in a course, program or activity.
- Such conduct has the purpose or effect of unreasonably interfering with an individual's work or performance in a course, program or activity, or of creating an intimidating, hostile or offensive environment in which one engages in employment, a course, a program or an activity.


## Confidentiality

To the extent permitted by law, the confidentiality of each party involved in a sexual harassment investigation, complaint or charge will be observed, provided it does not interfere with the University's ability to investigate the allegations or take corrective action.

## Examples of Sexual Harassment

- Physical assault
- Threats or insinuations which cause the victim to believe that sexual submission or rejection will affect his/her reputation, education, employment, advancement, or any conditions which concern the victim's standing at the University.
- Direct propositions of a sexual nature
- Subtle pressure for sexual activity, an element of which may be conduct such as unwelcome sexual leering
- Conduct (not legitimately related to the subject matter of the work, course, program, or activity in which one is involved) intending to or having the effect of discomforting and/or humiliating a reasonable person at whom the conduct is directed. This may include, but is not limited to, comments of a sexual nature or 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:


#### Abstract

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, 734.487.2157, or the Diversity and Affirmative Action Office (11 Welch Hall), 734.487.1166. 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: the Equal Employment Opportunity Commission, or the Michigan Department of Civil Rights.


#### Abstract

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

## Timeline for Steps in the Grade Grievance Procedure

(This timeline is derived from appropriate sections in the Grade Grievance Procedure.
The page number from which it is taken is underlined in parentheses following each item.)

## Step I

- The student must contact the instructor within ten (10) working days after the start of the following semester: i.e., the semester following the one in which the disputed grade was given.

Step II

- A written grievance must be filed within twenty (20) working days after the start of the next semester following the one in which the disputed grade was given.
- Within ten (10) working days after receipt of the written grievance, the department head must schedule a hearing before the Department/College Grievance Committee.
- The Committee hearing shall be open unless the student or instructor requests a closed hearing. This request should be conveyed in writing to the department head prior to the hearing . . . . (After the hearing) The committee will meet in executive session and will present its findings, in writing, to the department head within ten (10) working days.
- The department head will forward the committee's written decision to the student and the instructor within five (5) working days of this committee's decision/recommendation.
Step III
- Either the instructor or the student grievant may submit a written appeal of the prior decision at Step II by the Department/College Grade Grievance Committee within ten (10) working days of written receipt of that decision, if at least one of three conditions is met:

1. The Office of the Provost determines that there is evidence that established procedures for Step II were violated; or
2. There was at least one dissenting vote at the Step II level; or
3. New evidence or new witnesses not previously considered or heard at Step II become available.

- Within twenty (20) working days of the receipt of the appeal, the University Grade Grievance Committee shall issue a written Step III decision to both the instructor and the student.


## A. Introduction

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.

## B. Step I

If a student wishes to appeal a final grade, the student must contact the instructor within ten (10) working days after the start of the following semester: i.e., the semester following the one in which the disputed grade was given (see General Notes \#3, p. 9, for the spring-summer policy). If the instructor is teaching on campus the next semester, but is temporally unavailable or simply cannot be reached during this ten-day period, then the student should deliver a written request for an appointment with him/her, stating the reason, to the department head no later than the ten (10) day period. With the aid of the department head in scheduling an appointment, the instructor and the student must then meet as soon as possible and discuss the disputed grade privately. In the event that the department head has difficulty in assisting the student in scheduling the appointment, a detailed written record of communication or attempts to communicate between the department head and the instructor will be maintained by the department head. Whenever possible, conflicts over grades should be resolved informally between the instructor and the student as a result of this Step I discussion.

If the instructor has left the University permanently, or is not available for a period of sixty (60) days or more (e.g., if the instructor is away on a sabbatical leave, medical leave; or in his/her "off semester" on a Plan C appointment), then the department head shall act on his/her behalf and make a decision either in support of or against the grievance. In making this decision, the department head shall review all available grade records, discuss the matter with the student, and with written consent of the student, request and evaluate within ten (10) working days a written statement by the instructor concerning the disputed grade, when possible. The department head cannot act in this manner on behalf of the instructor during the spring-summer period because the instructor is not teaching during either the spring or summer session, unless the disputed grade affects the student's plans to graduate that year.

## C. Step II

If the grade dispute is not resolved in Step I to the student's satisfaction and he or she still believes that the grievance has merit based on. facts of the case, the student has the right to file a formal written grievance with the department head. In the written grievance, the student must indicate whether he/she requests that the case be heard by a Departmental or College Grade Grievance Committee. The department head will forward the written grievance immediately to the chairperson of the appropriate (Department or College) Grade Grievance Committee.

## Guidelines for filing a formal grievance are as follows:

1. A grievance must be based on evidence that the instructor has been capricious and/or unfair in awarding a grade. The written grievance must describe specifically the perceived capricious or unfair action of the instructor. The student also should present all other evidence or documentation in support of his or her allegations. Disagreement with an instructor's judgment in and of itself is not a basis for a grievance, nor is disagreement with an instructor's grading standards, if such standards have been described in advance for the class, and have been applied fairly to all students in the class.
2. A written grievance must be filed within twenty (20) working days after the start of the next semester following the one in which the disputed grade was given.
Within ten (10) working days after receipt of the written grievance, the department head in consultation with the chairperson of the Department/College Grade Grievance Committee will schedule a hearing before the Committee. The department head cannot simply make a personal judgment that the grievance is without merit, and thus refuse to give it to the Department/College Grade Grievance Committee. However, after scheduling the hearing; the department head may request a closed three-person meeting in his/her office with just the instructor and the student, to discuss informally the disputed grade one final time. If either the instructor or the student refuses to attend such a meeting, the department head cannot require his/her attendance, and the grievance is then held as previously scheduled. If a closed meeting is held, the department head shall act only as a facilitator or a mediator. His/her role is restricted solely to promoting further discussion, not to imposing his/her judgment and/or making a decision in the case. If the dispute is
resolved in this meeting, the written grievance shall be withdrawn and the scheduled hearing canceled. The student will provide written verification of withdrawal of the grievance to the instructor and department head at the conclusion of the meeting. If the dispute is not resolved, the grievance is then held as previously scheduled. In such cases, the department head shall not communicate his/her opinions/judgments regarding the grievance and/or the discussion at the closed meeting to the members of the Department/College Grade Grievance Committee.

The Department Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students. The faculty members shall be selected by appropriate department procedures. In undergraduate student grievances, the student representatives shall be selected from the list of representatives designated annually (no later than October 15 each year) by Student Government for each department in that particular college. In graduate student grievances, the student committee members much be graduate students. The graduate student representatives will be selected from the list of representatives designated annually (no later than October 15) by the Graduate School for each department in that particular college.

The College Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students. One faculty person and one student must be from the department from which the grievance originated. The other faculty and student representatives .must be from different departments within the college. The dean of the college in which the grievance originates will select the appropriate faculty and student representatives to serve on a particular grievance committee from the approved designated lists. The faculty approved to serve on the committee shall be designated by the College Council from a list of faculty submitted by each department by October 15 each year. In undergraduate student grievances, the student representatives shall be selected from the list of representatives designated annually (no later than October 15 each year) by Student Government for each department in that particular college. In graduate student grievances, the student committee members must be graduate students. The graduate student representatives will be selected from the list of representatives designated annually (no later than October 15) by the Graduate School for each department in that particular college.

The student grievant may, however, request in advance of the hearing in writing that the two (2) students be excused and that his or her grievance be heard only by three (3) faculty members.

This option applies regardless of whether the grievance is being heard by the Department or College Grade Grievance Committee. The committee shall conduct a hearing according to the following guidelines:

1. Prior to the hearing, any written information in support of either the student or the instructor shall be distributed to committee members by the department head. In addition, both the student grievant and the instructor shall be provided with copies of these same written materials. All available written information shall be presented at this time.
2. A detailed record shall be kept of the hearing, preferably a taped sound recording. If a written record is kept, that record shall be signed by the Grievance Committee asserting that the written record is a true record of the hearing proceedings.

Written or recorded records of any Step II grievance shall be kept on file in the college dean's office and copies shall be provided, upon request, to the student who has filed the grade grievance or the faculty member against whom the grievance was filed. Costs associated with duplicating grade grievance records shall be borne by the individual(s) requesting copies.
3. The 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.
4. Both the student and instructor shall be permitted an adviser at the hearing. Advisers must be members of the University community, i.e., students in good standing or full-time faculty or staff members.
5. The Department/College Grade Grievance chair shall begin the hearing by beginning the tape recorder (or announcing the name of the person who will be taking minutes) and reviewing the guidelines and procedures under which the hearing shall be conducted.

The committee chair will then announce, "This Step Level II Grade Grievance Hearing is being held on (date). (Name of student) is grieving the grade of (grade) received during the (semester) in (class prefix,
number, and section identification number) taught by (instructor). The following committee members are in attendance today: (members give their names)."
6. In order, the student and the instructor will present their cases. Both the student and the instructor may call witnesses, and the student, instructor, adviser(s), and committee members all have the right to question any witnesses that are called. The student and the instructor should be asked for brief closing statements.
7. The chair will then close the hearing with, "This Step Level II Grade Grievance Hearing is now concluded." The committee will meet in executive session and will present its findings, in writing, to the department head within ten (10) working days. The written decision/recommendations- will be signed by the members of the committee. The department head will forward the committee's written decision to the student and the instructor within five (5) working days of this committee's decision/recommendation.
8. If determined through the grievance process that a student's grade is to be changed, the following process will be used:
a. The Chair of the grade grievance committee will forward the committee's recommendation for the change of grade to the faculty member, Department Head and the student (grievant).
b. The faculty member shall have ten (10) working days from the issuance of the committee's recommendation to file a grade change or respond otherwise to the committee.
c. If the faculty member fails to change the grade or appeal the decision within the allotted time or notifies the committee of his/her intent not to comply with the recommendation to do so, the department head will file the grade change form in accordance with the committee's recommendation.
d. The student, faculty member, Department Head, and Grievance Committee Chairperson will receive copies of the completed grade change form.
9. Either the student or the instructor may appeal the decision/recommendations of the Department/College Grade Grievance Committee to the University Grade Grievance Committee under the conditions listed below. This appeal must be filed within ten (10) working days of receipt of the decision.

## D. Step III

Either the instructor or the student grievant may submit a written appeal of the decision at Step II by the Department/College Grade Grievance Committee within ten (10) working days of written receipt of that decision, if one of the following 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.

In the absence of 1,2 , or 3 above, simple disagreement with the decision rendered at Step II is not sufficient basis for an appeal. In other words, there is no automatic right of appeal in every case requiring that the University Grade Grievance Committee reconsider the entire grievance case. If the appeal is based on new evidence or new witnesses, the written appeal statement must explain precisely how this evidence or testimony relates directly to the alleged unfair or capricious awarding of the disputed grade. If said evidence or witnesses had been available prior to the Step II hearing, the hearing shall be remanded back to the Step- II departmental committee. Only newly discovered evidence and/or witnesses may be introduced at the Step- III hearing level (it shall be the responsibility of the petitioner to demonstrate that the evidence and/or witnesses were not available at Step II ).

The appeal shall be submitted to the provost or his/her designee with a copy to the dean of the appropriate college. The University Grade Grievance Committee shall be chaired by the provost or his/her designee and shall have the following additional members: the dean of the involved college or his/her designee; two (2) faculty members, one of whom is from the involved college, but not from the department in which the grievance originated; and one (1) student appointed by Student Government (in the case of undergraduate grievance) or by the Graduate School (in the case of graduate grievances). The two faculty members shall be selected by the provost or his/her designee from an available pool of nominees representing all colleges.

The University Grade Grievance Committee shall review all written documents that were available to the Department/College Grade Grievance Committee, the written or taped recording of the Step II hearing, and the final report and decision of the Step 11 Committee. The University Grade Grievance Committee may reconvene the participants in the Step II hearing to answer questions, if desired.

Within twenty (20)working days of the receipt of the appeal, the University Grade Grievance Committee shall issue a written Step III decision to both the instructor and the student. This decision shall be final; no further appeal is possible.

## E. Records

When the Grade Grievance Procedure results in an instructor's grade being changed without his or her agreement, then all University records containing that grade in which the name of the instructor appears shall be identified by an asterisk $\left(^{*}\right)$. On these records, the asterisk will be footnoted with the following statement: "This grade is a result of an appeal procedure." On those records in which the instructor's name does not appear, the grade will not be asterisked, nor will there be any other indication that the original grade was changed.

## F. General Notes

1. The time limits/deadlines for submitting grievances/appeals, holding meetings, making decisions are to be followed by all parties. However, extensions of the limits may be requested in writing by any of the involved parties. Such requests must originate prior to the expiration of the stated time limit. The dean of the involved college will make the decision to approve or to deny each request for a time limit extension at Step I or Step II. Decisions regarding Step III time limit extensions will be made by the Office of the Provost.
2. For Department Grade Grievance Committees, each academic department shall select the faculty members for the Department Grade Grievance Committee annually by October 15. The committee will hear all Step II grade grievances during the next twelve months in cases where the student requests the hearing at the departmental level. Substitute members shall be selected to replace any committee member who is personally involved in a grade grievance. Also, substitute members shall be selected to replace any faculty member who is unavailable for an extended period of time (e.g., spring and/or summer). For College Grade Grievance Committees, annually by October 15 , each academic department shall select faculty members to serve on the College Grade Grievance Committee (at least one person to serve as a regular member of the Committee and one as an alternate). The Committee will hear all Step II grade grievances during the next twelve months in cases where the student requests the hearing at the college level. Substitute members shall be selected to replace any committee member who is personally involved or has a conflict of interest in a grade grievance. Also, substitute members shall be selected to replace any faculty committee member who is unavailable for an extended period of time (e.g., spring and/or summer, sabbatical, etc.).
3. Each college shall select two (2) faculty members plus one (1) alternate who are available during a twelvemonth period for assignment to the Step III University Grade Grievance Committee. These selections shall be made by the appropriate college-level faculty advisory council/committee at the beginning of the academic year (by October 15). Unlike the Department/College Grade Grievance Committee, this Step III University Grade Grievance Committee may, of necessity, have a different membership for each grievance.

Grievances relating to grades awarded for the winter semester ending in April or for the Spring term ending in June shall normally be pursued the next fall, measuring all stated deadlines with respect to the start of the fall semester in September. However, if the instructor is teaching on campus during the spring or summer session and the student is enrolled on campus during the same session, then with their mutual agreement, the grievance can be pursued during the spring or summer. However, should either the instructor or the student prefer to wait, then action of the grievance will be postponed until the fall semester. The only .exception in which the grievance shall be pursued during the spring or summer session without the consent of the instructor who is teaching on campus is for any case in which the disputed grade affects the student's plans to graduate that year. In such cases, if the instructor is unwilling to participate, the department head may act on his/her behalf.
4. Throughout this procedure, the title "department head" shall be interpreted to include program directors or program coordinators for appropriate academic units in which there is no administrator with the title of "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 policy, 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 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 or 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 website ( www.emich.edu/sjs/). For more information, visit Student Judicial Services in 250 Student Center, or by phone at 734.487.2157.


## Student Conduct Code and University Disciplinary

## Process

It is the policy of Eastern Michigan University to establish a student conduct code, to be administered by the Office of Student Judicial Services, 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 of all members of the University community. The Eastern Michigan University Student Conduct Code and the accompanying student disciplinary processes are intended to foster ethical development, personal accountability and civility toward others.

## UNIVERSITY PRACTICE

The Student Conduct Code, below, outlines the practices to be utilized in administering the student disciplinary system at Eastern Michigan University.

## Section 1: Purpose

In support of the overall goals of Eastern Michigan University, the purpose of the Student Conduct Code, administered by the Office of Student Judicial Services, is to maintain a campus environment that is conducive to learning, protects the university's educational purposes, maintains reasonable order on campus, and protects the rights of all members of the University community. The Student Conduct Code and the accompanying student disciplinary processes are intended to foster ethical development, personal accountability and civility toward others.

The Code embraces several core philosophies: preservation of the rights of free speech and peaceable assembly; respect for freedom of inquiry and constructive criticism; a conviction that honesty and integrity are key values to the University community; and the belief that all members of the University should be part of a campus environment that respects differences of culture, gender, religion, race, age, lifestyle, or ability.

## Section II: Responsibility for Implementation

The President, as Chief Executive Officer of the University, has overall responsibility for implementation of the Student Conduct Code and the student disciplinary process and has delegated its overall management to the Vice President for Student Affairs and the Director of Student Judicial Services. The Student Judicial Services office is directly responsible for the daily administration of the University's student judicial system.

## Section III: Jurisdiction

The University will have jurisdiction over misconduct that occurs on University premises and/or at Universitysponsored 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.

## NOTES:

1. Transportation in sealed containers to and from an authorized area or place is permissible if the person in possession is of legal age to possess alcoholic beverages as allowed by Michigan law.
2. Use of alcohol and controlled substances by Greek Organizations is covered under Student Conduct Code Section XI: Special Provisions Governing the University Recognition and Conduct of Greek Letter Social Organizations." Those provisions should be used to address alcohol violations committed by a Greek organization.

## C. Computer Misuse

1. Unauthorized access, entry or use of a computer, computer system, network, software, password, account or data.
2. Unauthorized alteration or tampering with computer equipment, software, network, or data.
3. Unauthorized copying or distribution of computer software or data.
4. Use of computing facilities or equipment to send obscene, harassing or abusive messages.
5. Use of computers to falsify records, tamper with records or commit any act of academic dishonesty.
6. Any other act in violation of law and/or University policies and guidelines regulating computer-related use.

## D. Discrimination by Student Organizations

Selecting its membership upon the basis of restrictive clauses involving race, religion, color, national origin, gender, age, sexual orientation or disability unless any given student organization's membership restriction is shown to be specifically allowed by law.

## E. Disruptive Conduct

1. Actions that impair, interfere with, or obstruct the normal operations of the University and/or interfere with the rights of other members of the University community or visitors. This includes intentional occupation of or blocking the entry or exit of University facilities, including but not limited to buildings, classrooms, offices, hallways, entryways, conference rooms and campus grounds.
2. Actions that impair, interfere with, or obstruct the orderly conduct, processes and functions within any classroom or other instructional setting. This includes interfering with a faculty member's or instructor's role to carry out the normal academic or educational functions of his/her class.
3. Participating in, leading or inciting others to disrupt scheduled and/or normal campus activities, events and programs.
4. Intentional obstruction of the free flow of pedestrian or vehicular traffic on University premises or at University sponsored or supervised functions.
5. Disturbance of any member of the University community or visitor.
6. Solicitation on campus without prior approval from appropriate University officials. This includes, but is not limited to, the disbursement of any forms of promotional/informational material on University property or on items (e.g. motor vehicles) on University property, requests for donations, or the selling or vending of any merchandise or services.

## F. Drugs

1. Possession or use of narcotics, prescription drugs or other controlled substances in violation of local, state or federal drug or narcotic laws.
2. Distribution, delivery or sale of narcotics, prescription drugs or other controlled substances in violation of local, state or federal drug or narcotic laws.
3. Possession or use of drug paraphernalia.

## G. Failure to Comply

1. Failure to comply with a lawful order of a University official, including a campus police officer, in the performance of his/her duty.
2. Failure to comply with the sanctions rendered during the student judicial process.
3. Failure to comply with a request to be interviewed by a University judicial officer during the investigation of a conduct code violation. (Students may choose not to appear and present testimony at a student judicial proceeding after meeting with the judicial officer.)

## H. Falsification/Fraud/False Testimony

1. Furnishing false information to the University, including false reporting of emergencies, knowingly making false accusations or giving false testimony during the disciplinary process.
2. Misuse, reproduction, alteration or forgery of any University related documents, records, identification, keys, access codes or property.
3. Providing a worthless check or money order in payment to the University or to a member of the University community.

## I. Fire and Safety

1. Damage to, removal of or tampering with any fire safety systems, firefighting equipment or other emergency warning equipment.
2. Intentional or reckless burning or setting fire to any building or piece of property owned or controlled by the University.

## J. Gambling

Gambling or participation in games of chance on campus for money or other things of value except as provided by law.

## K. Guests

Students are responsible for informing their guests about campus regulations and may be held accountable for the behavior of their guests.

## L. Harassment/Stalking

1. Conduct (not of a sexual nature) that creates an intimidating, hostile, or offensive campus, educational or work environment for another person or group.
2. Conduct (not of a sexual nature) that threatens, intimidates, humiliates, or otherwise harms another person or group.
3. Stalking, defined as following or otherwise contacting, via any means, another person repeatedly for no legitimate purpose, so as to put that person in fear for his/her life or personal safety, or to cause that person substantial emotional distress. Stalking includes:
a. Repeatedly following or harassing another person.
b. Contacting a person after being asked or ordered not to contact the person.
c. Violating any provision of the Michigan Stalking Law.

## M. Hazing

1. Any action or activity, committed by either active members, associate members or pledges of an organization, which inflicts or intends to cause physical or mental harm or anxieties, or which may demean, degrade, or disgrace any person, regardless of location, intent or consent of participants. Hazing includes, but is not limited to:
a. Interference with a student's academic or work performance.
b. Forced consumption of any food, alcohol, other drugs, or any other substance.
c. Forced physical activity.
d. Deprivation of food or sleep.
e. Physical acts such as branding and paddling.
f.Requiring participation in any activity that violates University policies or any local, state or federal law. g.Other violations as outlined in the Interfraternity Council, Panhellenic Council or National Pan-Hellenic Council Constitutions.
2. Any action or situation which intentionally or unintentionally endangers a student who is attempting admission into or affiliation with any student organization.

## NOTES:

1. In cases where the activity is performed by an individual member of a student organization, the total organization may be held responsible, when those members not directly involved participate in said activity by encouraging, witnessing, or condoning the act in any manner.
2. Any individual 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, or educational or working environment, for another person. This includes unwelcome sexual advances or requests for sexual favors, inappropriate sexual or gender-based activities, comments or gestures, or other forms of verbal or physical conduct or communications constituting sexual harassment.
3. Obscene or indecent behavior, which includes, but is not limited to, indecent exposure or the display of sexual behavior that would reasonably be offensive to others.

## Q. Weapons/Firearms/Explosives

1. Possession, storage or use of firearms and other weapons, including non-lethal weapons such as pellet guns and paintball guns.
2. Possession, storage or use of firecrackers, gunpowder, ammunition, explosives or incendiary devices, or other articles or substances which could endanger health or safety.

## R. Other Violations

1. Violation of any other published or posted University regulations not specifically mentioned in this Section, including, but not limited to, the EMU Policy Manual(s); EMU'S Alcohol and Other Drug Policy; Residence Hall Contract and the Guide to Campus Living; Campus Life Council regulations and guidelines for organizations; Student Government monetary allocation guidelines; EMU published undergraduate and graduate catalogs; EMU'S Athletics Alcohol and Other Drug Education and Testing Policy; and ORD Research Guidelines.
2. Aiding and abetting another in any violation of laws and/or University policies.
3. Attempt or intent to commit any violation outlined in the Student Conduct Code.
4. Off-Campus Conduct as described in the Student Conduct Code, Section III: Jurisdiction.

## Section VI: Sanctions for Misconduct

The purpose of University discipline is to be corrective and educational as well as punitive. The disciplinary experience is intended to make clear to students the limits of acceptable behavior and to give students who violate the rules an
opportunity to more fully understand the rules and incorporate the experience into their 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 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 the 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:
3. 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.
4. There is new evidence of a substantive nature not previously available at the time of the hearing, which would have materially affected the decision.
5. The severity of the sanction is disproportionate to the violation(s) committed.
6. The decision of the Board was not supported by the evidence presented at the hearing.
7. 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:
8. 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.
9. The sanction is too lenient given the violation(s) committed.
10. There is new evidence of a substantive nature not previously available at the time of the hearing, which would have materially affected the decision.
11. The decision of the Board was not supported by the evidence presented at the hearing.
12. 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.
13. 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.
14. 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 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:
15. Uphold the decision of the University Judicial Board in its entirety.
16. Alter the sanctions imposed by the University Judicial Board except that the Board cannot increase the severity of the sanctions if the appeal was filed by the student(s)/student organizations.
17. 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 subsection $F$ below.
18. 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 academic sanctions until after the student has gone through the University disciplinary process. If, at the end of that process, the charge of academic dishonesty is upheld, the faculty member may then assign an academic sanction. The academic sanction is independent of any disciplinary actions taken against the student by the University.
E. Academic sanctions assigned by the faculty member in agreement with the student or assigned by the faculty member after the charge of academic dishonesty has been validated through the University disciplinary system cannot be grieved under the University's Grade Grievance Procedure.

## Section XI: Special Provisions Governing the University Recognition and Conduct of Greek Letter Social Organizations

A. Because of the importance of the Greek social system and because of the unique circumstances under which it operates, the following conditions have been established between the University and the Greek social organizations. These provisions set out the requirements for maintaining University recognition and good standing and delineate specific violations that may be handled through the Greek system's own judicial process rather than under the University's Student Conduct Code.
B. The University reserves the right to retain jurisdiction over cases in which the conduct violates both these provisions and the University's Student Conduct Code and the University determines that the misconduct is of such severe nature as to impair, obstruct, interfere with or adversely affect the mission, processes or functions of the University.
C. The University may take action against an individual member of a student organization for misconduct that is a violation both 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:
6. The incident will be referred to the respective Greek Judicial Board for hearing and original adjudication (i.e., sorority cases will be handled by 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.
7. A decision rendered by the respective Greek Judicial Board may be appealed either by the party alleging the violation or by the Greek social organization being accused of a violation. The appeal will be made to the Greek Council Judicial Board, which may accept, modify or reject any sanction issued by the Greek Judicial Board.
8. Student Judicial Services will receive written transcripts of all final judicial decisions, whether from the respective Greek Judicial Board (if there was no appeal of its decision) or from the Greek Council Judicial Board (for decisions that were appealed). Student Judicial Services will review the decision and may accept or reject the proposed sanctions.
9. In the event Student Judicial Services rejects the final decision, the Director will provide a written explanation of the rejection and a recommended alternative.
10. In the event that Student Judicial Services and the Greek board rendering the final decision cannot reach an agreement, the case will be referred to the Eastern Michigan University Judicial Appeals Board as outlined in the Eastern Michigan University Student Conduct Code. In this instance Student Judicial Services will notify the national or international headquarters of the organization involved. In the case of local organizations, the Alumni Association will be notified.

## Section XII: Interim Suspensions and Other Interim Sanctions

A. For alleged violations of this Code, interim sanctions, including but not limited to interim suspension, reassignment to alternate housing, limitation of access to designated University housing facilities and/or campus facilities by time and location, and limitation of privilege to engage in specified University activities, may be imposed by the President or his/her designee. Such interim sanctions are to be utilized only when there is reason to believe that the student(s)/student organization's conduct poses a substantial threat of harm to 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. The interim sanctions or interim suspension take effect the day 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.
C. 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 .
D. 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 aged twenty-one (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 twenty-one (21) years of age may possess and consume alcoholic beverages only at approved University functions or in residence hall rooms of students who have attained the legal drinking age. Those under twenty-one (21) years of age are not permitted to consume or possess alcoholic beverages at any time.

Students, employees and visitors are prohibited from dispensing, selling or supplying alcoholic beverages to a person under the legal drinking age as defined by Michigan law.

Students, employees, and visitors are prohibited from possessing, consuming, manufacturing, dispensing, or being under the influence of illegal drugs or engaging in improper self-medication while on University property or University business.

Any member of the University community who violates this policy is subject to both prosecution and punishment under federal, state and local laws and to disciplinary proceedings by the University.

This policy is not designed to punish people for seeking rehabilitation. All information about those individuals who voluntarily avail themselves of drug or alcohol counseling or rehabilitation services will remain confidential. Seeking counseling or rehabilitation will not be used as a basis for disciplinary action or be used against an individual in any way.

University employees and students who violate this policy shall be informed about and referred to services to assist them in determining whether they are abusing drugs and alcohol or are chemically dependent. If a problem is found to exist, the individual will be referred to resources to assist him/her in overcoming the drug or alcohol abuse pattern. This referral or assessment shall not limit the University's ability to pursue appropriate disciplinary action, up to and including termination or expulsion, when an employee or student has violated this policy or any other University policy.

This policy shall not add to or supersede union contracts or established employee work rules.

## Health Risks of Alcohol and Other Drugs

- ALCOHOL Loss of concentration and judgment, slowed reflexes; disorientation leading to higher risk of accidents and problem behavior; risk of liver and heart damage, malnutrition, cancer and other illnesses; can be highly addictive to some persons.
- AMPHETAMINES Can cause rushed, careless behavior - pushing beyond your physical capacity, leading to exhaustion; tolerance increases rapidly; causes physical and psychological dependence; withdrawal can result in depression and suicide; continued high doses can cause heart problems, infections, malnutrition, and death.
- CANNABIS Causes permanent damage to lungs, reproductive organs and brain function; slows reflexes; increases forgetfulness; alters judgment of space and distance.
- COCAINE Causes damage to respiratory and immune systems; induces malnutrition, seizures and loss of brain function. Some forms (such as "crack") are highly addictive.
- HALLUCINOGENS (PCP, LSD, Ecstasy) Causes extreme distortions of what's seen and heard; induces sudden changes in behavior, loss of concentration and memory; increases risk of birth defects in user's children; overdose can cause psychosis, convulsions, coma, and death. Frequent use can cause permanent loss of mental function.
- NARCOTICS (Heroin, morphine, opium, codeine) Tolerance increases rapidly; causes physical and psychological dependence; overdose can cause coma, convulsions, respiratory arrest, and death; leads to malnutrition, infection and hepatitis; sharing needles is a leading cause of the spread of HIV and Hepatitis; highly addictive.
- S EDATIVES Tolerance increases rapidly; produces physical and psychological dependence; causes reduced reaction time, and confusion; overdoses can cause coma, respiratory arrest, convulsions, and death; withdrawal can be dangerous; in combination with other controlled substances can quickly cause coma and death.
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 $\quad 734.487 .1118$
Health Education Program 734.487.2226
Department of Public Safety 734.487.1222

## Alcohol and Other Drug Abuse Treatment Services Available in S.E. Michigan

Adrian

- Emma Bixby Medical Center and Satellite Sage Center for Substance Abuse Treatment 517.265.0411

Ann Arbor/Ypsilanti Area

- St. Joseph’s Mercy Hospital Chemical Dependency Services, 734.786.4900, website: www.sjmh.com
- Ann Arbor Consultation Services, 734.996.9111
- U of M Addiction Treatment Services (UMATS), toll free 800.828.8020 or 734.232.0600
- Alcoholics Anonymous, 734.482.5700, Huron Valley Area Intergroup, website: www.hvai.org
- Narcotics Anonymous for Washtenaw \& Livingston County, 734.913.9839
- Dawn Farm, 734.485.8725 or 734.669.8265
- Washtenaw County Health Services Access (for those with no ability to pay), 800.440.7548 or 734.544.3050

Brighton/Livingston County

- Brighton Hospital, 888.215 .2700 or 810. 227.1211, web site: http://brightonhospital.org/
- Narcotics Anonymous for Washtenaw \& Livingston County, 734.913.9839

Detroit Metropolitan Area

- Alcoholics Anonymous for Detroit or Wayne County, 313.831.5550
- Narcotics Anonymous, 248.543.7200
- Insight Recovery Centers, 248.524.9530, web site: www.insightrecovery.org/wayne.htm
- Eastwood Clinics: website: www.stjohn.org
- Dearborn, 313.583.0735
- Detroit (Gratiot \& 8 Mile), 313.369.5000

Flint

- Insight Recovery Centers, 810.733 .0900 or 800.356 .4357 web site: www.insightrecovery.org
- Community Recovery Services, 810.744.3600
- Narcotics Anonymous, 810.238.3636
- Alcoholics Anonymous, 810.234.0815

Jackson

- Washington Way, 517.782.4001
- Alcoholics Anonymous in Jackson, 517.789.8883

Toledo

- Alcoholics Anonymous, 419.380 .9862
- Narcotics Anonymous, 800.587.4232
- Toledo Hospital Alcohol \& Drug Assessment and Treatment Center
- Inpatient: 419.291.2351
- Outpatient/assessment: 419.291.2300


## Sanctions for Violations of Laws \& 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: 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, Study 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 2 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 at which it is determined that parental notification is permitted under the provisions of this policy, the student will be given twenty-four (24) hours to make the initial contact with the parents or legal guardians prior to the University notifying the parents or legal guardians.
4. Within the twenty-four (24) hour time period that a student has to notify his/her parents or legal guardians, the student may submit documentation or a written statement indicating that there are special circumstances that make parental notification inappropriate. The University's designee will consider the request and make a determination as to notification on a case-by-case basis.
5. Parental notification is in addition to any other sanctions issued by the University.

## 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 practicably possible and in accordance with all federal, state and local laws. Students, employees and visitors are prohibited from using tobacco throughout all University buildings (exception University Apartments), University vehicles and outside 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 restrooms, warehouses, storage spaces, 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 litter 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 \& 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 violation and not more than $\$ 500$ for 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 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 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, probation, 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 2-4 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 reproductive and early childhood effects, including an increased risk for infertility, preterm delivery, stillbirth, low birth weight, and sudden infant death syndrome.


## Second-Hand Smoke

- Second-hand smoke is associated with an increased risk for lung cancer and coronary heart disease in nonsmoking adults. Second-hand smoke is a known human carcinogen (cancer-causing agent).
- Because their lungs are not fully developed, young children are particularly susceptible to second-hand 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.

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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 a pdf downloadable version of the policy go to
www.emich.edu/uhs/tobaccopolicy.html
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## 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 is 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 is 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 Division of Information Technology.
- 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. Division of Information Technology 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. Division of Information Technology staff should be informed of all such actions. Every effort will be made to inform affected users prior to disconnection, and every effort will be made to reestablish the connection as soon as it is deemed mutually acceptable. Any employee or student found to violate University standards of conduct will be subject to disciplinary action under University policy. Any suspected violation of state and federal information technology laws will be reported to the appropriate legal authority for investigation.

August 1996

## EDUCOM Code

Respect for intellectual labor and creativity is vital to academic discourse and enterprise. This principle applies to works of all authors and publishers in all media. It encompasses respect for the right to acknowledgment, right to privacy and right to determine the form, manner and terms of publication and distribution. Because electronic information is volatile and easily reproduced, respect for the work and personal expression of others is especially critical in computer environments. Violations of authorial integrity, including plagiarism, invasion of privacy, unauthorized access and trade secret and copyright violations, may be grounds for sanctions against members of the academic community.

## Using Software: A Guide to the Ethical and Legal Use of Software for Members of the Academic Community issued by EDUCOM and ADAPSO

Here are some relevant facts:

1. Unauthorized copying of software is illegal. Copyright law protects software authors and publishers, just as patent law protects inventors.
2. Unauthorized copying of software by individuals can harm the entire academic community. If unauthorized copying proliferates on a campus, the institution may incur a legal liability. Also, the institution may find it more difficult to negotiate agreements that would make software more widely and less expensively available to members of the academic community.
3. Unauthorized copying of software can deprive developers of a fair return for their work, increase prices, reduce the level of future support and enhancement and inhibit the development of new software products.
Respect for the intellectual work and property of others has traditionally been essential to the mission of colleges and universities. As members of the academic community, we value the free exchange of ideas. Just as we do not tolerate plagiarism, we do not condone the unauthorized copying of software, including programs, applications, 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,
- 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,
- 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,
- 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 license carefully before you use the software. Some licenses may restrict use to a specific computer.

Copyright law does not permit you to run your software on two or more computers simultaneously unless the license agreement specifically allows it. It may, however, be legal to loan your software to a friend temporarily as long as you do not keep a copy.
C. If software is not copy-protected, do I have the right to copy it?

Lack of copy-protection does not constitute permission to copy software in order to share or sell it. "Non-copy-protected" software enables you to protect your investment by making a back-up copy. In offering non-copy-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.

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## A Final Note

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1. Receive and use unauthorized copies of software, or
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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 judgment 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 of the University 

Board of Regents

Chair: Thomas W. Sidlik
Vice Chair: Roy E. Wilbanks
Secretary: Jackie Jurtz
Floyd Clack
Francine Parker
Gary D. Hawks
Mohamed Okdie
James F. Stapleton
Philip A. Incarnati

## Office of the President and Strategic Operations Council

President: Susan W. Martin<br>Provost and Executive Vice President for Academic Affairs: Donald Loppnow<br>Vice President for Advancement and Executive Director of EMU Foundation:<br>Chief Financial Officer, Business and Finance: John Lumm<br>Vice President for Student Affairs and Enrollment Management (Interim): Bernice Lindke<br>Associate Vice President of University Marketing and Communication: Ted Coutilish<br>Executive Director of Intercollegiate Athletics: Derrick Gragg<br>General Counsel/University Attorney: Kenneth A. McKanders<br>Chief Information Officer (Interim): Connie Schaffer<br>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 Executive Vice President for Academic Affairs: Donald Loppnow
Executive Associate to the Provost for Development: Dennis Beagen
Associate Provost and Associate Vice President for Research: Robert Neely

## Division of Advancement

Vice President for Advancement and Executive Director of the EMU Foundation: Director of Alumni Relations: Vicki Reaume

## Division of Business and Finance

Chief Financial Officer, Business and Finance: John Lumm
Associate Vice President, Facilities: John Donegan
Assistant Vice President and Controller:

## Human Resources

# Division of Student Affairs and Enrollment Management 

Vice President (Interim): Bernice A. Lindke
Associate Vice President: Vacant
Assistant Vice President for Student Affairs: Glenna Frank Miller
Assistant Vice President for Retention and Student Success: Lynette Findley
Academic Advising Center

Director: Vacant

## Admissions

Director: Kathy Orscheln

## Campus Life

Director: Melissa Ginotti

## Career Services Center

Director (Interim): Sarah Kersey Otto

## Dining Services

# Diversity and Community Involvement 

Director: Kay Woodiel

## EMU Student Center

Director: Carlos Costa

## Financial Aid

Director: Cynthia Van Pelt

## Financial Services, Student Affairs

Director: Brian Kulpa

## Holman Learning Center

Director: Mark Jackson

## Housing

Director: Rebecca J. Figura
International Students, Office of

Director: Esther Gunel
Ombudsman

Gregory A. Peoples

## Records and Registration

Registrar: Christina Shell

## Recreation/Intramurals

Director: Robert W. England

## Service EMU

## Student Judicial Services

Director: Jesús Hernández

## Student Media

Director: Kevin Devine

## Students with Disabilities Office

Director: Vacant

## University Health Services

## Executive Director: Ellen Gold

- Children's Institute, Director: Chris Aris
- Counseling Services, Director: Lisa Lauterbach
- Health Education and Wellness Programs, Director: Vacant
- Medical Services, Chief of Medical Staff: Kimberly Keller, M.D.


## Faculty

## Accounting and Finance

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## Bruce T. Halle Library

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## Geography and Geology

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Tyler, Norman R. (1990) Professor; Ph.D.; University of Michigan Welsh, William (2005) Assistant Professor; Ph.D.; UNC-Chapel Hill
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## 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, Geffrey (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) Assistiant Professor; Ph.D.; Michigan State University
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## 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) Associate 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
Gossett, Andrea (2008) Assistant Professor; OTD; University of Illinois, Chicago
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Hansen, Ruth (1976) Professor Emeritus; Ph.D.; Wayne State University
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Howells, Valerie (1998) Professor; Ph.D.; Cambridge Graduate School of Psychology
Lemerand, Pamela (2005) Assistant Professor; Ph.D.; Univeristy of Michigan
Liepa, George U. (1995) Professor; Ph.D.; Iowa State University
Mistry, Anahita (2005) Assistant Professor; Ph.D.; University of Hyderbad, India.
Olson, Judith (1991) Professor Emeritus; 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 Shetron-Rama, Lynne (2007) Assistant Professor; Ph.D; Wayne State University 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
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## History and Philosophy

Bruya, Brian (2004) Assistant Professor; Ph.D.; University of Hawaii Cassar, George H. (1968) Professor; Ph.D.; McGill University
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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, Gersham A. (1997) Professor; Ph.D.; University of Illinois-Chicago
Olwell, Russell B. (1999) Associate Professor; Ph.D.; Massachusetts Institute of Technology
Pritchard, Linda K. (2002) 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

Schott, Linda K. (2003) Professor, Ph.D.; Stanford University
Vinyard, JoEllen (1986) Professor; Ph.D.; University of Michigan
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## Leadership and Counseling

Ametrano, Irene M. (1981) Professor; Ed.D.; Rutgers University
Anderson, David (1999) Associate Professor; Ed.D.; University of Michigan
Barott, James E. (1998) Associate Professor; Ph.D.; University of California-Santa Barbara
Berry, James E. (1991) Professor; Ed.D; University of Missouri-Columbia
Bleyaert, Barbara A. (2005) Assistant Professor, Ed.D.; Eastern Michigan University
Broughton, Elizabeth (1997) Associate Professor; Ed.D.; University of Florida
Burton, Ella (2000) Associate Professor, Ed.D.; Wayne State University
Callaway, Yvonne L. (1992) Professor; Ph.D.; Wayne State University
Choudhuri, Devika (2001) Associate Professor; Ph.D.; Syracuse University
Dugger, Suzanne M. (1998) Associate Professor; Ed.D.; Western Michigan University
Flowers, Ronald D. (2006) Assistant Professor; Ed.D.; Eastern Michigan University
Francis, Perry (2005) Associate Professor; EdD; University of Northern Colorado
Marx, Gary (2005) Assistant Professor, EdD; Wayne State University
Parfitt, Diane (2006) Assistant Professor; Ph.D.; University of Toledo
Price, William J. (1991) Professor; Ph.D.; Michigan State University
Stickel, Sue A. (1991) Professor; Ph.D.; University of Wyoming
Tack, Martha W. (1990) Professor; Ph.D.; University of Alabama
Tracy, Jaclynn C. (1992) Professor and Department Head; Ph.D.; Michigan State University
Williamson, Ronald D. (2001) Professor; Ed.D.; Eastern Michigan University
Zamani-Gallaher, Eboni M. (2001) Associate Professor; Ph.D.; University of Illinois

## Management

Banerji, Kunal (1992) Assistant Professor, Ph.D.; University of Kentucky Blanchard, Nick P. (1979) Professor; Ph.D.; Wayne State University Bush-Bacelis, Jean (1984) Professor; Ph.D.; Wayne State University
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Endres, Megan (1998) Assistant Professor; Ph.D.; University of North Texas
Frye, Crissie M. (2000) Assistant Professor; Ph.D.; University of Iowa
Hill, Raymond E. (1978) Professor; Ph.D.; Purdue University
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Isenhour, Linda (2004) Assistant Professor; University of Central Florida
McEnery, Jean M. (1980) Professor; Ph.D.; Wayne State University
Milner, Morgan (2004) Assistant Professor; Ph.D.; Michigan State University
Newell, Stephanie E. (1994) Associate Professor; Ph.D.; University of Massachusetts-Amherst
Schulz, Eric (2000) Associate Professor; Ph.D.; Rutgers University
Tanguay, Denise (1986) Professor; Ph.D.; University of Michigan
Tubbs, Stewart L. (1986) Professor; Ph.D.; University of Kansas
Victor, David A. (1985) Professor; Ph.D.; University of Michigan
Vielhaber, Mary E. (1977) Professor; Ph.D.; University of Michigan
Wagner-Marsh, Fraya C. (1982) Professor and Department Head; D.B.A.; Memphis State University
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## Marketing

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## Mathematics

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Howard, Paul E. (1970) Professor; Ph.D.; University of Michigan Jones, Joan Cohen (1998) Professor; Ph.D.; Georgia State University Leapard, Barbara (2000) Associate Professor; Ph.D.; University of Toledo Liu, Jiuqiang (1993) Professor; Ph.D.; Western Michigan University Parry, Walter (1984) Professor; Ph.D.; University of California-Berkeley Ramanathan, Jayakumar (1990) Professor; Ph.D.; University of Chicago Rescorla, Kim L. (1985) Professor; Ph.D.; University of Utah Ross, Andrew (2006) Assistant Professor; Ph.D.; University of California-Berkeley Shapla, Tanweer (2006) Assistant Professor; Ph.D.; Bowling Green State University Shiskowski, Kenneth M. (1983) Professor; Ph.D.; Lehigh University Tayeh, Carla (1989) Professor; Ph.D.; Southern Illinois University
Wang, Bingwu (2002) Assistant Professor; Ph.D.; Wayne State University
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## Music and Dance

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Babcock, Donald J. (2001) Assistant Professor; D.M.A.; Michigan State University
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Cole-Luevano, Kimberly (1996) Associate Professor; D.M.A.; Michigan State University
Dorsey, John F. (1997) Assistant Professor; M.M.; University of Michigan
Eggers, Carter J. (1967) Professor; M.M.; Ithaca College
Foster, Daniel L. (1987) Associate Professor; M.M.; University of Michigan
Gajda, Anne B. (1979) Professor; M.M.; University of Michigan
Hornbach, Christina (2005) Assistant Professor; Ph.D.; Michigan State University
Iannaccone, Anthony J. (1971) Professor; Ph.D.; Eastman School of Music University of Rochester
Jerome, Sherry (1999) Assistant Professor; M.F.A.; Texas Christian University
Kirkland, Glenda E. (1973) Professor; M.A.; Eastern Michigan University
McGuire, Michael G. (1983) Professor; M.M.; State University of New York
McNamara, Joann (1986) Professor; Ph.D.; Texas Women's University
Meretta, Kristy L. (1987) Professor; M.A.; University of Michigan
Miller, Kevin (1991) Associate Professor; M.M.; University of Michigan
O'Brien-Pedersen, Julianne (1998) Assistant Professor; M.F.A.; Ohio State University
Patrick, Louise Rose (1990) Professor; Ph.D.; Michigan State University
Pedersen, Garik (1989) Professor; D.M.A.; University of Iowa
Pierce, David (1990) Professor; D.M.A.; University of Illinois-Urbana-Champaign
Plank, Max E. (1968) Professor; D.M.A.; University of Michigan
Prince, J. Whitney (1981) Professor; D.M.A.; University of Colorado
Ruiter-Feenstra, Pamela (1996) Associate Professor; D.M.A.; University of Iowa
Saker, Marilyn N. (1993) Associate Professor; Ph.D.; University of Wisconsin-Madison
Schoenhals, Joel (2001) Assistant Professor; D.M.A.; Eastman School of Music University of Rochester
Simmons, Phil (2006) Assistant Professor; M.F.A; University of Georgia
Smith, John R. (1969) Assistant Professor; M.A.; Eastern Michigan University
Stone, Julie (1994) Associate Professor; D.M.A.; University of Maryland-College Park
Waymire, Mark (2006) Assistant Professor; M.M.; Sam Houston State University
Winder, Diane (1988) Professor; D.M.; Florida State University
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Zirk, Willard D. (1981) Professor; D.M.A.; University of Michigan

## Nursing

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Branson-Hillegas, Kathleen (1981) R.N./B.S.N. Coordinator, Associate Professor; M.S.; University of Michigan Ervin, Naomi E. (2006), Professor and Director; Ph.D., R.N., A.P.R.N., B.C., F.A.A.N.; University of Michigan Fox, Diane (2004) Assistant Professor; M.S.N., R.N.; Eastern Michigan University Kao, Tsui-Sui (2006) Assistant Professor; M.S.N., R.N.; University of Michigan Lan, Virginia (1997) Associate Professor; Ph.D., R.N.; University of Michigan Nelson, Sandra (1990) Associate Professor; Ph.D., A.P.R.N., BC.; Michigan State University Pfoutz, Susan (1998) Professor; Ph.D., R.N.; University of Michigan
Riley, Janice (2002) Lecturer; M.S., R.N.; Eastern Michigan University
Rubenfeld, Marlene G. (1986) Associate Professor; R.N., M.S.; Ohio State University
Scheffer, Barbara K. (1976) Professor; Ed.D., R.N.; Eastern Michigan University
Tanicala, Martha (1999) Associate Professor; Ed.D, R.N.; Bowling Green University
Trewn, Peggy (1998) Associate Professor; Ph.D., R.N.; Wayne State University
Williams, Michael (1998) Associate Professor; M.S.N., R.N.; Grand Valley State University
Wilson, Lorraine (1988) Professor; Ph.D., R.N.; Wayne State University

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## Physics and Astronomy

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Carroll, James J., III (1998) Associate Professor; Ph.D.; West Virginia University
Jacobs, Diane A. (1985) Professor; Ph.D.; University of Texas-Austin
Koehn, Patrick L. (2005) Assistant Professor; Ph.D.; University of Michigan.
Oakes, Alexandria (1987) Professor and Department Head; Ph.D.; Lehigh University
Porter, James C. (1967) Professor; Ph.D.; Purdue University
Sharma, Natthi L. (1986) Professor; Ph.D.; Ohio University
Sheerin, James P. (1991) Professor; Ph.D.; University of Michigan
Shen, Weidian C. (1991) Professor; Ph.D.; Wayne State University
Thomsen, J. Marshall (1986) Professor; Ph.D.; Michigan State University
Trochet, Daniel P. (1968) Professor; Ph.D.; University of Michigan
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## Political Science

Bernstein, Jeffrey (1997) Assistant Professor; Ph.D.; University of Michigan
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Longworth, Rhonda (1994) Associate Professor and Interim Assistant Vice President for Academic Affairs; Ph.D.;
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Lottie, Adrian J. (1992) Associate Professor; Ph.D.; Wayne State University
Martin, Elaine F. (1984) Professor; Ph.D.; University of Oklahoma
Monsma, Charles (1971) Professor; Ph.D.; University of Michigan
Ohren, Joseph F. (1985) Professor; Ph.D.; Syracuse University
Petrescu, Claudia (2002) Assistant Professor; Ph.D.; University of Pittsburgh
Pfister, James Wilber (1970) Associate Professor; Ph.D.; University of Michigan
Pyle, Barry (1997) Associate Professor; Ph.D.; University of Missouri-St. Louis
Rosenfeld, Raymond A. (1983) Professor and Department Head; Ph.D.; Emory University
Sabki, Mohammad Hisham (1969) Professor; Ph.D.; Indiana University
Scott, Joanna V. (1990) Professor; Ph.D.; University of Strathclyde, Scotland
Sidlow, Edward (1995) Professor; Ph.D. Ohio State University
Sneed, Bethany (2004) Assistant Professor; Ph.D.;Wayne State University
Stahler-Sholk, Richard (1997) Associate Professor; Ph.D. University of California-Berkeley
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## Psychology

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Byrd, Michelle R. (2002) Assistant Professor; Ph.D.; University of Nevada at Reno
Delprato, Dennis J. (1969) Professor; Ph.D.; Michigan State University
Fish, Barry A. (1970) Professor; Ph.D.; Wayne State University
Freedman-Doan, Carol R. (1995) Professor; Ph.D.; Wayne State University
Gordon, Norman G. (1975) Professor; Ph.D.; Wayne State University
Hodges, Kay V. (1989) Professor; Ph.D.; University of Maryland
Hoodin, Flora (1998) Associate Professor; Ph.D.; Wayne State University

Huprich, Steven (2004) Assistant Professor; Ph.D.; University of North Carolina at Greensborough
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Jeffersom, Stephen (2006) Assistant Professor; Ph.D.; Michigan State University
Knapp, John R. (1971) Professor; Ph.D.; University of Denver
Koch, Ellen (2003) Assistant Professor; Ph.D; Western Michigan University
Lajiness-O'Neill, Renee (2005) Assistant Professor, Ph.D.; Brigham Young University
Lauterbach, Dean (2001) Professor; Ph.D.; Purdue University
McManus, John L. (1981) Associate Professor; Ph.D.; Ohio State University
Penix, Tamara (2006) Assistant Professor; Ph.D.; University of Nevada at Reno
Rusiniak, Kenneth W. (1981) Professor; Ph.D.; University of California at Los Angeles
Saules, Karen K. (2001) Professor; Ph.D.; Wayne State University
Todd, James T. (1990) Professor; Ph.D.; University of Kansas
Von Kluge, Silvia (1990) Professor; Ph.D.; Michigan State University
Westman, Alida S. (1972) Professor; Ph.D.; Cornell University
Witkow, Melissa (2006) Assistant Professor; Ph.D.; University of California at Los Angeles

## Social Work

Bombyk, Marti (1996) Professor; Ph.D.; University of Michigan
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Davis, Laura (1994) Associate Professor; Ph.D.; Cornell University
Gray, Sylvia Sims (1988) Associate Professor; Ph.D.; Wayne State University
Gunther, John (2001) Professor; Ph.D.; Tulane University (1979)
Krajewski-Jaime, Elvia (1985) Professor; Ph.D.; University of Texas
Kurtz, Linda Ferris (1989) Professor; Ph.D.; University of Georgia
Lewis, Ronald (1992) Professor; Ph.D.; University of Denver
Loppnow, Donald (1976) Professor and Senior Executive for Institutional Effectiveness; Ph.D.; University of Michigan
Massie, Enos (1989) Associate Professor; Ph.D.; University of Michigan
Mills, Crystal (1992) Professor; Ph.D.; University of Michigan
Nybell, Lynn (1983) Associate Professor; Ph.D.; M.S.W.; University of Michigan
Ragg, Mark (1996) Associate Professor; Ph.D.; Case Western Reserve
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
Weinberg, Sylvia (1996) Associate Professor; Ph.D.; University of Texas
Ziefert, Marjorie (1981) Professor and Department Head; M.S.W.; Columbia University

## Sociology, Anthropology and Criminology

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Cao, Liqun (1994) Professor; Ph.D.; University of Cincinnati
Cerroni-Long, Liza (1987) Professor; Ph.D.; University of California at Los Angeles
Corsianos, Marilyn (2002) Assistant Professor; Ph.D.; York University
Kern, Roger (1998) Assistant Professor; Ph.D.; Vanderbilt University
Leighton, Paul (1997) Associate Professor; Ph.D.; American University
Moaddel, Mansoor (1987) Professor; Ph.D.; University of Wisconsin
Orrange, Robert M. (2001) Assistant Professor; Ph. D.; University of Texas
Reiling, Denise (2000) Assistant Professor; Ph.D. Michigan State University
Richardson, Barbara (1991) Professor; Ph.D.; Cornell University
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Sinclair, Karen (1976) Professor; Ph.D.; Brown University
Tomaszewski, E. Andreas (2001) Assistant Professor; Ph. D.; Carleton University Weinstein, Jay (1986) Professor and Interim Department Head; Ph.D.; University of Illinois Westrum, Ronald (1972) Professor; Ph.D.; University of Chicago

## Special Education

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Cameron, S. (2004) Assistant Professor; J.D.; University of Toledo
Carney, Karen (2002) Assistant Professor; Ph.D.; Arizona State University
Cupples, Willie P., Jr. (1994) Professor; Ph.D.; Northwestern University
Doster, Brenda (2006) Assitant Professor, Ph.D.; University of Michigan
Ginsberg, Sarah (2002) Assistant Professor; Ed.D; Eastern Michigan University
Gorenflo, Carole (1988) Professor; Ph.D.; Michigan State University
Hoodin, Ronald (1988) Professor; Ph.D.; Pennsylvania State University
Hric, Kathleen (2005) Assistant Professor; Ph.D.; University of Michigan
Koh, Myung-Sook (2005) Assistant Professor; Ph.D.; University of Memphis
Lee, Lidia (2002) Associate Professor; Ph.D.; Indiana University
Li, Tsai-Ping (Alicia) (1995) Assistant Professor; Ed.D.; University of Northern Colorado
McGinnis, Jacqueline (2002) Assistant Professor; Ph.D.; University of Nebraska-Lincoln
Orr, A. (2004) Assistant Professor; Ed.D.; University of Michigan
Parker, Kathlyn (1999) Assistant Professor; Ph.D.; Teacher's College- Columbia University
Polter, L. (2004) Assistant Professor; Sp.A.; Eastern Michigan University
Rocklage, Lynne A. (1991) Professor and Department Head; Ph.D.; Southern Illinois University
Schulte, K. (2004) Assistant Professor, Sp.A.; Eastern Michigan University
Smith, P. (2004) Assistant Professor; Ed.D.; University of Vermont
Stevens, Lizbeth (1998) Associate Professor; Ph.D.; Wayne State University
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## Teacher Education

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Bednar, Anne (1991) Professor; Ed.D.; Indiana University
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Bishop, J. Joe (2002) AssociateProfessor; Ph.D.; University of Iowa
Burke, Wendy (2000) Associate Professor; Ph.D.; University of Illinois at Urbana-Champaign
Burns, Carolyn M. (2001) Assistant Professor; M.A.; University of Michigan
Carter, Carolyn J. (2001) Associate Professor; Ph.D.; Wayne State University
Copeland, Nancy (2002) Assistant Professor; MBE; Wayne State University
Daisey, Peggy (1994) Professor; Ph.D.; Kansas State University
Dichtelmiller, Margo L. (2000) Associate Professor; Ph.D; University of Michigan
Dokes-Brown, Marion A. (2001) Associate Professor; Ph.D.; Texas Women's University
Finch, Carolyn (1999) Professor; Ph.D.; University of Maryland
Gordon, Jane (1992) Professor; Ph.D.; University of Miami
Gould, Caroline (1997) Assistant Professor; M.A.; University of Michigan
Grossman, Sue (1995) Associate Professor; Ph.D.; Michigan State University
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Langer, Georgea (1985) Professor; Ph.D.; Stanford University
Lewis-White, Linda (1996) Professor; Ph.D.; East Texas State University
Lowenstein, Ethan (2002) Assistant Professor; Ph.D.; New York University
Margerum-Leys, Jon (2000) Associate Professor; Ph.D.; University of Michigan
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## Technology Studies

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Boone, Morrell D. (2001) Professor and Interim Dean Ph.D.; Syracuse University
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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
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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


[^0]:    __Credit Hours: 6 hrs _Cross-Listed: This

[^1]:    __Credit Hours: 1 hr _Corequisites:
    CTAS124, CHEM117 and CHEM118

[^2]:    __Credit Hours: 3 hrs

